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SECRETARY OF THE AIR FORCE**

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Flying Operations



E-4B—AIRCREW EVALUATION CRITERIA

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This volume implements AFD 11-2, *Aircraft Rules and Procedures*; AFD 11-4, *Aviation Service*; and AFI 11-202V2, *Aircrew Standardization/Evaluation Program*. This volume establishes minimum Air Force standards for qualifying personnel who operate United States Air Force (USAF) E-4 aircraft and applies to all E-4 units. This volume applies to Air Force Reserve Command and Air National Guard personnel who operate USAF E-4 aircraft. Major commands (MAJCOM), Direct Reporting Units (DRU), and Field Operating Agencies (FOA) will forward proposed MAJCOM, DRU, and FOA supplements to this volume to Headquarters (HQ) USAF/A3O-AT through HQ Air Combat Command (ACC)/A3Y for approval prior to publication in accordance with (IAW) AFD 11-2, paragraph 4.2. Copies of MAJCOM-, DRU-, and FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM, DRU, and FOA to HQ USAF/A3O-AT, HQ ACC/A3Y, and the user MAJCOM, DRU, and FOA offices of primary responsibility (OPR). Field units below MAJCOM-, DRU-, and FOA-level will forward copies of their supplements to this volume to their parent MAJCOM, DRU, and FOA OPR for post-publication review. The terms DRU and FOA used in this paragraph refer only to those DRUs and FOAs that report directly to HQ USAF. This publication requires the collection and/or maintenance of information protected by the Privacy Act (PA) of 1974. The authorities to collect and/or maintain the records prescribed in this publication are Title 10, United States Code, Chapter 857 and Executive Order 9397, Numbering System for Federal Accounts Relating to Individual Persons, November 22, 1943. Forms affected by the PA have an appropriate PA statement. System of records notice F011 AF XO A, Aviation Resource Management System (ARMS) (December 26, 2002, 67 FR 78777) applies. Paperwork Reduction Act of 1974 as amended in 1996 affects this instruction. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with AF Records Disposition Schedule (RDS) located on the AF Portal at the Air Force Records Information Management System (AFRIMS) link at the following URL: <https://www.my.af.mil/gcss-af61a/afirms/afirms>.

SUMMARY OF CHANGES

This volume is substantially revised and must be thoroughly reviewed. This revision changes office symbols from HQ USAF/XOO to HQ USAF/A3O, HQ USAF/XOOT to HQ USAF/A3O-AT, and ACC/DISA to ACC/A3YR. The following is a synopsis of specific changes except for minor deletions, formatting and reference number changes: Para **1.4.2**. Deleted provision for using the simulator for E-4B pilot evaluations. Para **1.5.1**. Updated publications requirements to reflect the transition to electronic publications. Para **1.5.4**. Changed to clarify the fact that mission evaluations are integrated into the qualification evaluation. Para **1.6.1.1.3**. Deleted note here and throughout this instruction specifying that communication crew members are required to maintain a personal set of publications. Para **1.6.1.2.1**. Changed FCIF review procedures to reflect new Patriot Excalibur electronic procedures. Also, added new guidance for Flight Attendant. **1.6.1.6**. Deleted NOTE "If required by the flight manual". Para **2.1.4.1**. replace "must" with "should". Para **2.3.2.6** deleted Area 14 Unusual Attitudes grading criteria. Para **2.3.2.7.3 (note 1)** deleted mandatory statement regarding practice emergency separation. Para **2.3.2.10.1.3**. changed heading/course tolerance from 10 to 5 degrees. Para **2.3.2.10.3**. deleted note 2 and the requirement to fly a manual ILS to CAT II mins for CAT II/IIIa certification. Para **2.3.2.12.3. (note)** added 3 engine requirement. Para **2.3.2.18.3**. Deleted note 1 and the increased tolerances for simulated 3 engine conditions. **Table 3.1** Deleted the following requirements: Level off/Departure/Coast out, In-Flight Information/Fixing, and celestial navigation. **Para 3.3.2.1.3.(note 3)** Added option of either printed or electronic charts. **Para 3.3.2.10.3**. Added note 3 to credit air refueling rendezvous verbal accomplishment for re-curring and requalification evaluations only. Added note 3 to credit air refueling rendezvous verbal accomplishment for re-curring evaluations only. Deleted Boldface requirements for the navigator, flight attendant and all communications positions. **Para 6.3.2.3.3** Deleted all NOTES that apply to SE, RM-1, RM-2, TC-2 and SHF.

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Chapter 1

GENERAL INFORMATION

1.1. General. This instruction provides flight examiners and aircrew members with procedures and evaluation criteria used during flight evaluations. It is a reference document and a standard for evaluation purposes. Adherence to these procedures and criteria will ensure an accurate assessment of the proficiency and capabilities of aircrew members. Each crew specialty has a separate chapter in this AFI that provides specific information and grading criteria for that specialty.

1.2. Recommendation for Change of Publication. Recommendations for improvements to this volume will be submitted on AF Form 847, *Recommendation for Change of Publication*, IAW AFI 11-215, *Flight Manuals Program*, to HQ ACC/A3YR. Recommendations approved will be forwarded to HQ ACC/A3TV, collated into interim or formal change notices, and forwarded to HQ USAF/A3O-AT for HQ USAF approval.

1.3. Waivers. IAW AFI 11-202V2 and ACC Supplement procedures, waiver requests must be routed through the Numbered Air Force (NAF) for comment. Waiver approval authority is HQ ACC/A3, with HQ ACC/A3TV/A3YR coordination. All waiver requests will be submitted in memo or message format and must include the following, as applicable:

1.3.1. Name, rank, crew position, type aircraft, type of evaluation, expiration date, and applicable paragraph.

1.3.2. Justification for waiver.

1.3.3. Unit plan of action.

1.4. Procedures:

1.4.1. Standardization Evaluation Flight Examiners (SEFE) will use the grading policies contained in AFI 11-202V2 and the evaluation criteria in this instruction for conducting all E-4B Flight and Emergency Procedures evaluations (EPE). All evaluations assume smooth air, a stable platform and normal operating conditions. Deliberately misleading questions and compound Emergency Procedures will not be used.

1.4.2. All evaluations fall under the Qualification (QUAL), Instrument (INSTM), Instructor (INSTR), or SPOT categories listed in AFI 11-202V2. For difference evaluations which do not update an eligibility zone, list as "Spot" on the front of the AF Form 8, *Certificate of Aircrew Qualification*, and explain that it was a difference evaluation under "Mission Description." Instrument evaluations apply to pilots only. Schedule all evaluation activity on one sortie to the greatest extent possible. Do not begin an evaluation until all training items required for that evaluation are complete.

1.4.2.1. During all evaluations, any grading areas observed by the SEFE may be evaluated. If additional training is required for areas outside of the scheduled evaluation, document the training required under the appropriate area on the AF Form 8.

1.4.2.2. Each chapter in this instruction contains a table of requirements for various evaluations. Accompanying each table are notes that may be found at the bottom of the individual grading criteria (designated by an "X"). To complete an evaluation, all areas annotated with an "R" must be successfully completed. SEFEs will make every effort to evaluate all required areas during flight. When a required area cannot be evaluated in-flight because of equipment malfunctions,

weather conditions, operational requirements, or lack of adequate operating airspace, the area may be graded using a ground simulator or a verbal evaluation at OG/CC discretion. OGV will define in the 55th OG Evaluation Profile Letter those areas that MUST be evaluated in flight.

1.4.3. Prior to beginning an evaluation, the SEFE will explain the purpose of the evaluation and how it will be conducted to the evaluatee. After the briefing, the examinee will accomplish any required mission planning and provide the SEFE copies of any mission planning materials upon request.

1.4.4. During an evaluation, the SEFE will assess the examinee performance for each required grading area and note discrepancies when deviations occur. SEFEs must intervene to prevent/correct breaches of flying safety or flight discipline and to prevent aircraft/equipment capabilities from being exceeded.

1.4.5. Post-evaluation, the SEFE will compare the examinee's performance with the tolerances provided in the grading criteria and assign an appropriate grade for each area. Momentary deviations from tolerances will not be considered in the grading, provided the examinee applies prompt action and such deviations do not jeopardize flying safety. Cumulative deviations will be considered when determining the overall grade. Deviations incurred while employing the "See and Avoid" concept will be considered momentary deviations. The SEFE will state the examinee's overall rating, thoroughly critique specific deviations, area grades assigned and assign any required additional training.

1.5. General Evaluation Requirements:

1.5.1. **Publications Check** . The publications check is a requisite to all qualification evaluations, and will be annotated in the Comments block of the AF Form 8 only if unsatisfactory. Satisfactory performance for individual flight publications requires that they be current and properly posted. Publications will be maintained either hard copy, electronically (Flash drive), or both by front-end crewmembers (P, N, FE, FA). For those crewmembers maintaining only electronic publications on a flash drive, the evaluator will check that they have the most current version on their flash drive. AFI 11-2E-4 Vol 3, *E-4 Operations Procedures*, and the local OGV supplement to AFI 11-202 Vol 2 dictate the required publications to be maintained and/or carried in-flight by crewmembers.

1.5.2. Examinations:

1.5.2.1. **Qualification Examination (Open book).** This exam consists of questions derived from applicable flight manuals and governing directives. The exam will consist of at least 50 questions. Units may increase the number of questions to provide an in-depth evaluation of the examinee's knowledge.

1.5.2.2. **Emergency Procedures Examination (Closed book and Bold Face).** A general knowledge emergency procedures exam containing two parts: questions covering a cross-section of Warnings and Cautions from flight manuals applicable to the individual's crew position/unit mission and a Bold Face test, when applicable, for each critical action procedure. A correct Bold Face response will include proper order and intent; correct spelling is not graded.

1.5.2.3. **Instrument Examination (IRC).** Required for navigators (Qualification requisite) and for pilots taking instrument evaluations (included in the unit Instrument Refresher Course).

1.5.3. **Emergency Procedures Evaluation (EPE).** Document the method of EPE accomplishment in comments block of the AF Form 8. The EPE scenario must accurately evaluate the required areas. Qualification EPEs must cover applicable Bold Face and Critical Action Procedures (CAPs),

emergency procedures, and systems operation. Use the Emergency Procedures grading criteria in this chapter to evaluate the EPE.

1.5.4. Qualification/Mission Evaluation. Mission evaluations are integrated into the qualification evaluation. The requirements for qualification in this volume ensures that all necessary tasks required to perform operational, test, and training sorties on this platform are accomplished during instrument and/or qualification evaluations. This evaluation will be combined with instrument evaluations, as applicable for the crew position.

1.5.5. Instructor Evaluation. All instructor aircrew members will be evaluated on their ability as an instructor during their initial instructor upgrade evaluation and on all periodic evaluations. Instructor flight evaluations will be conducted with a student occupying the applicable aircrew position whenever possible (exception-pilot instructor evaluations, see paragraph [2.1.4.](#)). The student will perform those duties prescribed by the instructor for the mission being accomplished. If an actual student is not available, the SEFE will identify to the examinee (prior to the mission) the level of performance to be expected from the SEFE/instructor acting as the student. If this option is utilized, at least one event or briefing must be instructed as an “initial demo.” The instructor examinee will monitor all phases of flight from an advantageous position and be prepared to demonstrate or explain any area or procedure. The SEFE will note the instructor’s ability to recognize student difficulties and provide effective, timely corrective action. The SEFE will also evaluate grade assignment, Training Accomplishment Progress Report (TAPR) completion for all instructor checks. All instructor evaluations will include a student briefing based on a thorough review of an actual or simulated student training folder/required documentation. This evaluation may be combined to realign an evaluation zone, provided primary emphasis remains on instructional ability. Accomplish initial instructor evaluations on actual student instructional missions whenever possible. Periodic instructor evaluations will be administered in conjunction with required qualification, and instrument (if applicable) flight evaluations. During these evaluations, the examinee must occupy the primary duty position for an adequate period of time to demonstrate proficiency in the crew position. **Note:** During instructor evaluations, SEFEs must exercise sound judgment to ensure questions are not only comprehensive, but more importantly, pertinent to the crew member’s duties, responsibilities and experience level.

1.5.6. Instructor Requalification Evaluations. Former instructors who meet AFI 11-2E-4V1, *E-4 Aircrew Training*, criteria to re-qualify as instructors may receive a combined qualification/instructor flight evaluation.

1.5.7. Instrument Evaluations. Instrument evaluations apply to pilots only. See **chapter 2** of this volume for specific requirements.

1.5.8. Unlike Specialty Evaluation. All SEFEs must report deviations/discrepancies from established procedures/directives in any area, regardless of the individual’s crew specialty, to the Squadron Commander (SQ/CC) or Operations Officer (SQ/DO), and Chief of OGV for action. Annotate SPOT in the Flight Phase block of the AF Form 8. The Chief of OGV will sign as the flight examiner. If a SEFE is flying as an instructor or crewmember and deviations are observed, report deviations to appropriate individuals (No AF Form 8).

1.6. Grading Instructions and General Grading Criteria. Standards and performance parameters are contained in AFI 11-202V2 and this instruction. A three-level grading system is used for most areas, however a “Q-” grade will not be indicated under critical areas.

1.6.1. General Criteria. The following general qualification and the instructor grading criteria are common to all crew positions, (except as noted) and will be used for all applicable evaluations:

1.6.1.1. AREA 1 – PERSONAL/PROFESSIONAL EQUIPMENT.

1.6.1.1.1. **Q** . Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications according to directives.

1.6.1.1.2. **Q-** . Possessed personal/professional equipment and publications with minor omissions. Maintained equipment in serviceable condition. Posted publications with omissions, deviations or errors that detracted from sortie execution. Did not jeopardize sortie success.

1.6.1.1.3. **U**. Failed to possess personal/professional equipment or to maintain equipment in serviceable condition. Posted publications with major omissions, deviations or errors which could jeopardized sortie success.

1.6.1.2. AREA 2 – MISSION PLANNING:

1.6.1.2.1. **Q**. Developed a sound plan to accomplish the mission. Checked all factors applicable to mission success (i.e., weather, fuel requirements, DV coordination, systems degrades, etc.,) as prescribed by the flight manual and other applicable directives. Reviewed Flight Crew Information File (FCIF), Vol. 1, Part B and signed electronic FCIF in Patriot Excalibur (PEX). **NOTE:** If PEX is down, crewmembers will consult the hard-copy FCIF library and initial the flight orders by their name that they have read the latest FCIFs. Complied with local directives and participated in all required briefings. Aware of alternatives available if flight cannot be completed as planned. Effectively coordinated with other crewmembers. Mission planning was adequate with no more than minor omissions, deviations or errors which did not impact planned sortie success. **Additional Guidance: Flight Attendant:** Coordinated meals with the Aircraft Commander and Passenger Point of Contact in an efficient manner. Menus were properly selected to suit allotted flight times/DV special requests. All food products were purchased, properly stored, and maintained. All required food service equipment was obtained, loaded, and stored according to applicable directives. Had all needed supplies to complete the mission.

1.6.1.2.2. **Q-**. Same as above, except minor errors or omissions that could detract from mission effectiveness. Knowledge of performance capabilities or approved operating procedures/rules marginal in some areas. Did not fully comply with local directives. Omissions, deviations or errors detracted from planned sortie execution. Did not jeopardize planned sortie success.

1.6.1.2.3. **U**. Major errors or omissions that would preclude safe/effective mission accomplishment. Faulty knowledge of operating data or procedures. Failed to check and sign FCIF, Vol. 1, Part B. Failed to comply with local directives or participate in all required briefings. Mission planning was inadequate and/or jeopardized planned sortie success.

1.6.1.3. AREA 3 – CHECKLIST PROCEDURES:

1.6.1.3.1. **Q**. Checklist items and procedures required by the flight manual and applicable directives were accomplished in a thorough and proficient manner with no more than minor omissions, deviations or errors which did not impact sortie success.

1.6.1.3.2. **Q-**. Checklist items and procedures required by the flight manual and applicable directives were accomplished with omissions, deviations, or errors which detracted from sortie execution. Did not jeopardize sortie success.

1.6.1.3.3. **U.** Checklist items and procedures required by the flight manual and applicable directives were accomplished with major omissions, deviations or errors. Jeopardized sortie success.

1.6.1.4. AREA 4 – EMERGENCY PROCEDURES (GENERAL) (May be evaluated orally):

1.6.1.4.1. **Q.** Recognized actual/simulated malfunctions. Applied proper corrective actions. Effectively used checklist/flight manual. Thoroughly familiar with additional emergency procedures. Properly coordinated emergency procedures with other crewmembers without delay or confusion.

1.6.1.4.2. **Q-.** Recognized actual/simulated malfunctions. Slow response to non-boldface situations or additional emergency procedures. Procedures were correct, but evaluatee was slow to locate required checklist/flight manual data. Slow or hesitant to coordinate emergency procedures with other crewmembers.

1.6.1.4.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood or unaware of additional emergency procedures. Improperly coordinated emergency procedures with other crewmembers causing delay or confusion.

1.6.1.5. AREA 5 – EMERGENCY PROCEDURES (BOLDFACE) (CRITICAL):

1.6.1.5.1. **Q.** Made correct and timely responses. Coordinated proper actions.

1.6.1.5.2. **U.** Incorrect sequence, unsatisfactory response and/or unsatisfactory performance of corrective action. **NOTE:** Applies to Pilots and FEs only

1.6.1.6. AREA 6 – SAFETY (CRITICAL):

1.6.1.6.1. **Q.** Aware of and complied with all safety factors required for safe operation and mission accomplishment.

1.6.1.6.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

1.6.1.7. AREA 7- AIRMANSHIP/AIRCREW DISCIPLINE(CRITICAL):

1.6.1.7.1. **Q.** Demonstrated professional discipline, effective situational awareness, and sound judgment. Recognized and corrected task saturation or channelized attention. Decisions were timely and logical and did not jeopardize sortie success.

1.6.1.7.2. **U.** Demonstrated less than professional discipline, poor judgment or a lack of situational awareness. Failed to recognize or correct task saturation or channelized attention. Decisions, or a lack thereof, jeopardized sortie success or were not timely or logical. Violated or ignored directives.

1.6.1.8. AREA 8 – CREW COORDINATION/ CRM:

1.6.1.8.1. **Q.** Demonstrated strict, professional flight and crew discipline throughout all phases of flight. Complied with directives. Coordinated effectively with other crewmembers without confusion or undue delay. Exercised sound CRM skills. See AFI 11-290, *Cockpit/Crew Resource Management Training Program*, and AF Form 4031, *Skills Training Evaluation Form*, as a reference.

1.6.1.8.2. **Q-.** Adequate coordination with other aircrew members, but demonstrated limited knowledge of other crewmembers duties/responsibilities. Showed some hesitation to provide

timely direction/information which would have clarified confusion or rectified the situation. Use of available resources to manage workload limited mission success.

1.6.1.8.3. **U.** Failed to exhibit strict flight or crew discipline. Violated or ignored rules or instructions. Crew coordination/CRM was ineffective.

1.6.1.9. POSTFLIGHT/DEBRIEF:

1.6.1.9.1. **Q.** Satisfactory knowledge and performance of required postflight activities. Attended/participated in required debrief(s). Ensured AFTO Form 781, **AFORMS Aircrew/Mission Flight Data Document**, was completed and satisfactorily debriefed required personnel.

1.6.1.9.2. **Q-.** Incomplete knowledge of required procedures. Attended/participated in required debrief(s), but hesitant to make appropriate inputs. AFTO Form 781 entries and required debriefing(s) were not complete or thorough.

1.6.1.9.3. **U.** Unsatisfactory knowledge of required procedures. Major deviations in procedures. Failed to attend or participate in required debrief(s). Failed to complete or ensure completion of AFTO Form 781 and required debrief(s).

1.6.1.10. OPERATIONAL EXECUTION:

1.6.1.10.1. **Q.** Evaluatee accomplished mission goals. Applied operational procedures were consistent with objectives, current directives and applicable flight manuals. Aircraft/Equipment was properly configured IAW mission priorities and timing. Evaluatee adapted to meet changing situations. **Additional Guidance: Navigator:** Accomplished either a block time control exercise (BTCE) or low pass visual rendezvous (LPVR) maneuver to within +/-2 minutes of established time.

1.6.1.10.2. **Q-.** As above but with minor deviations, omissions or errors, which did not prevent accomplishment of mission goals. Slow to adapt to changing situations. **Additional Guidance: Navigator:** Accomplished either BTCE or LPVR to within +/-4 minutes of established time.

1.6.1.10.3. **U.** Did not accomplish mission goals. Applied operational procedures inconsistent with objectives and current directives. Aircraft/Equipment was not properly configured, effecting mission success. Failed to adapt to changing situations. **Note 1:** Pilot-Alert procedures (as a minimum: Alert Cocking, Alert Engine Start, Alert Before Takeoff, and Self-Sustained Alert Shutdown/Cocking Checklists) should be accomplished on initial qualification evaluations. **Note 2:** Pilot- A sampling of alert procedures should be evaluated on recurring qualification evaluations. **Note 3:** Pilot- Aircraft commanders should occupy the right seat, alert aircraft commanders should occupy the left seat and instructor pilots may occupy either seat. **Note 4:** Navigator- The evaluator may award credit for a blocktime control exercise when BTCE procedures are used to compute a touchdown time for the first approach / low approach or subsequent approaches when transition is scheduled for the remainder of the sortie. **Note 5:** Navigator- Do not penalize the navigator if they have made every reasonable effort to make the blocktime and unforeseen events such as ATC sequencing, weather, etc., prevent accomplishment within specified timing criteria. **Note 6:** Flight Engineer- Alert procedures (as a minimum: Alert Cocking, Alert Engine Start, Alert Before Takeoff, and Self-Sustained Alert Shutdown/Cocking Checklists) should be accomplished. **Note 7:** This area not applicable to Flight Attendants.

1.6.1.11. COMMUNICATIONS, LOGS, AND REPORTS:

1.6.1.11.1. **Q.** Communicated required mission information within the aircraft and with external agencies. Communications were clear, concise, timely and used standard terminology/format. All logs, reports, media and forms required for the mission were completed in accordance with applicable directives, tasking and policy. Information was provided in sufficient detail to allow accurate and timely analysis of associated mission data. Complied with security procedures.

1.6.1.11.2. **Q-.** As above but with minor deviations, omissions or errors which did not significantly impact the planned mission. Complied with security procedures.

1.6.1.11.3. **U.** Major deviations, omissions or errors which significantly impacted the planned mission. Communications caused confusion or delay. Logs, reports, media or forms **required** for the mission contained errors or omissions precluding analysis of mission data. Failed to comply with security procedures.

1.7. Instructor Criteria:**1.7.1. INSTRUCTIONAL ABILITY:**

1.7.1.1. **Q.** Demonstrated ability to communicate effectively. Provided appropriate corrective guidance when necessary. Planned ahead and made timely decisions. Correctly analyzed student errors.

1.7.1.2. **Q-.** Minor discrepancies in the above criteria that did not adversely impact student progress.

1.7.1.3. **U.** Unable to effectively communicate with the student. Did not provide corrective action where necessary. Did not plan ahead or anticipate student problems. Incorrectly analyzed student errors. Adversely impacted student progress.

1.7.2. BRIEFINGS/CRITIQUE:

1.7.2.1. **Q.** Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Demonstrated ability during critique to reconstruct the flight, offer mission analysis, and provide corrective guidance where appropriate. Completed all training documents according to prescribed directives. Correct grades awarded.

1.7.2.2. **Q-.** As above but with minor errors or omissions in briefings, critique, and/or training documents that did not adversely impact student progress.

1.7.2.3. **U.** Briefings were marginal or nonexistent. Did not review student's training folder or past performance. Failed to adequately critique student or conducted an incomplete mission analysis which compromised learning. Student strengths or weaknesses were not adequately identified. Adversely impacted student progress. Inappropriate grades awarded. Overlooked or omitted major discrepancies.

1.7.3. DEMONSTRATION AND PERFORMANCE:

1.7.3.1. **Q.** Effectively demonstrated procedures and techniques on the ground and in flight. Demonstrated thorough knowledge of aircraft systems, procedures and all applicable publications and regulations.

1.7.3.2. **Q-**. Minor discrepancies in the above Q criteria that did not adversely impact student progress.

1.7.3.3. **U**. Did not demonstrate correct procedure or technique. Insufficient depth of knowledge about aircraft systems, procedures, or proper source material. Adversely impacted student progress. **Note:** Awarding a “U” in any of the above instructor grading criteria areas will result in a Q-3 for the overall instructor grade. The overall grade for the instructor portion of the evaluation will be no higher than the lowest overall grade awarded under QUAL/INSTM.

Chapter 2

PILOT EVALUATIONS

2.1. Instructions:

2.1.1. The grading criteria contained in this chapter are applicable to evaluations for pilots and were established by experience, policies, and procedures set forth in flight manuals and other directives. SEFEs must realize that grading criteria contained herein cannot cover every situation. Written parameters must be tempered with mission objectives and, more importantly, mission/task accomplishment in the determination of overall aircrew performance. Specific requirements for each evaluation are as follows:

2.1.2. Qualification Evaluations:

2.1.2.1. **Ground Requisites.** Qualification Examination (open book), Emergency Procedures Examination (closed book and Boldface/CAPs), Emergency Procedures Evaluation (EPE) and Publications Check.

2.1.2.2. **Flight Phase.** All areas required in [table 2.1.](#) under “QUAL” will be evaluated.

2.1.3. Instrument Evaluations:

2.1.3.1. **Ground Requisites.** Instrument Refresher Course (IRC) and written Instrument Examination.

2.1.3.2. **Flight Phase.** All areas required in [table 2.1.](#) under “INSTM” will be evaluated. The instrument flight phase will normally be combined with the qualification flight phase. **Note:** Pilots with an expired instrument check must fly under the direct supervision of an IP.

2.1.4.1. **Instructor Evaluations.** Pilots receiving initial instructor evaluations should occupy the right seat during the evaluation. An IP or SEFE should occupy the left seat. On periodic evaluations, instructors may occupy either seat to accomplish required items. A student, pilot, IP or SEFE may occupy the other seat. The SEFE may, during any phase of the evaluation, require the instructor examinee to demonstrate and/or present verbal explanations to the SEFE on air refueling, emergency procedures/equipment, aircraft systems (location, configuration, operation, procedures, and techniques), mission knowledge or any other operating procedures and techniques. Demonstrations will be pre-briefed to the examinee and will be accomplished at an appropriate time so as not to interfere with the examinee's crew duties and pacing. Instructors on recurring evaluations should instruct based on the needs of the student (actual or simulated). All areas required in [table 2.1.](#) under “INSTR” will be evaluated.

2.1.4.2. **Instructor Requalification Evaluation.** Former instructors who have regained currency and qualification in the aircraft, and who meet training volume criteria to re-qualify as a instructor, will receive a instructor flight evaluation consisting of a student pre-briefing, in flight instruction based on student (real or simulated) needs, and a post-flight critique TAPR. In flight instruction will include the demos listed in para 2.1.4.1 and areas listed in [table 2.1.](#), under “INSTR”, but no other specific in flight events are required. If the former instructor requires initial instructor training/evaluation based on guidance in the training volume, or if the instructor requalification is concurrent with the aircraft requalification, comply with para 2.1.5.

2.1.5. **Emergency Procedures Evaluation (EPE).** Additional guidance: EPEs will evaluate the pilot's performance of all Boldface/CAPs, a cross- section of noncritical emergency procedures,

knowledge and performance of general systems operation, and unusual attitude recoveries. Use the Emergency Procedures-Bold Face criteria for Bold Face/CAPs, and the Emergency Procedures criteria for all other emergency situations given. Use Systems Knowledge/Operation criteria to evaluate general systems operation.

2.2. Evaluation Requirements. Table 2.1 lists areas for pilot qualification, instrument, and instructor evaluations. An “R” indicates a requirement for that evaluation. The NOTES column may include an “X” which refers to a general note found in the specific grading criteria table.

Table 2.1. Pilot Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	INSTM	INSTR
1. Personal/Professional Equipment		R		R
2. Mission Planning		R		R
3. Checklist Procedures		R		R
4. Emergency Procedures (General)		R		R
5. Emergency Procedures (Boldface) (Critical)	X	R		R
6. Safety (Critical)		R		R
7. Airmanship/Aircrew Discipline (Critical)		R		R
8. Crew Coordination/CRM		R		R
9. Pre-Takeoff		R		
10. Takeoff		R		
11. Departure	X	R		
12. Cruise/Navigation		R		
13. ATC Communications/IFF/SIF		R		R
14. Unusual Attitudes	X	R		
15. Holding			R	
16. Air Refueling	X	R		R
17. Descent		R		
18. IFR Traffic Pattern			R	
19. Precision Approach	X		R	
20. Non-Precision Approach			R	
21. Category II/IIIa ILS Procedures	X		R	
22. Missed Approach	X		R	
23. Go Around	X	R		
24. VFR Pattern		R		
25. Landings	X	R		R

26. Touch and Go Landings	X	R		R
27. Simulated Outboard Engine Failure (T/O Continued)	X	R		R
28. Simulated Outboard Engine Out (Approach/MAP)	X	R		R
29. Systems Knowledge/Operation	X	R		
30. After Landing		R		
31. Postflight/Debrief		R		
32. Operational Execution	X	R		
33. Communications, Logs, and Reports		R		
34. Instructional Ability				R
35. Briefings/Critique				R
36. Demonstration and Performance	X			R

2.3. Grading Criteria.

Standards and performance parameters are contained in AFI 11-202V2 and this instruction. For all evaluations, the SEFE will disregard minor deviations from tolerances for the purpose of clearing conflicting traffic provided the 14valuate initiates timely corrective action. When VMC, see and avoid responsibilities are paramount.

2.3.1. For the following areas, see [chapter 1](#) for grading criteria:

2.3.1.1. Qualification:

- 2.3.1.1.1. Personal/Professional Equipment.
- 2.3.1.1.2. Mission Planning.
- 2.3.1.1.3. Checklist Procedures.
- 2.3.1.1.4. Emergency Procedures. (General)
- 2.3.1.1.5. Emergency Procedures. (Boldface) (Critical)
- 2.3.1.1.6. Safety. (Critical)
- 2.3.1.1.7. Airmanship/Aircrew Discipline. (Critical)
- 2.3.1.1.8. Crew Coordination/CRM.
- 2.3.1.1.9. Postflight/Debrief.
- 2.3.1.1.10. Operational Execution.
- 2.3.1.1.11. Communications, Logs, and Reports.

2.3.1.2. Instructor:

- 2.3.1.2.1. Instructional Ability.
- 2.3.1.2.2. Briefings/Critique.
- 2.3.1.2.3. Demonstration and Performance.

2.3.2. Pilot-Specific Grading Criteria.**2.3.2.1. AREA 9 - PRE-TAKEOFF:**

2.3.2.1.1. **Q.** Established and adhered to engine start, taxi, and takeoff times as required to assure thorough preflight. Performed all checks and procedures prior to takeoff according to approved checklists and applicable directives. Was knowledgeable of applicable sections and checked AFTO Forms 781. Accurately determined aircraft's readiness for flight. Taxi speeds appropriate for conditions. Visually cleared area.

2.3.2.1.2. **Q-.** Same as above except for minor procedural deviations which would not detract from mission effectiveness. Displayed limited knowledge of AFTO Forms 781. Accurately determined aircraft's readiness for flight. Taxi speeds appropriate for conditions. Visually cleared area.

2.3.2.1.3. **U.** Did not use checklist or omitted major item(s). Major deviation in procedures which would preclude safe mission accomplishment. Failed to accurately determine aircraft's readiness for flight. Taxi speeds unsafe for conditions. Did not adequately clear area.

2.3.2.2. AREA 10 – TAKEOFF:

2.3.2.2.1. **Q.** Smooth, positive aircraft control throughout takeoff. Performed according to flight manual procedures and techniques.

2.3.2.2.2. **Q-.** Minor deviations from published procedures not affecting safety of flight. Control rough or erratic. Hesitant in application of corrections.

2.3.2.2.3. **U.** Liftoff potentially dangerous. Exceeded aircraft limitations. Failed to establish proper climb attitude. Marginal control of the aircraft. Violated flight manual procedures.

2.3.2.3. AREA 11- DEPARTURE:

2.3.2.3.1. **Q.** Performed departure as published/directed and complied with all restrictions. Applied heading/course correction promptly. Smooth, positive aircraft control throughout.

2.3.2.3.1.1. Altitude +/- 200 ft (intermediate level off)

2.3.2.3.1.2. Airspeed +/- 10 Kts/.03 Mach

2.3.2.3.1.3. Heading/Course +/- 10 degrees (when assigned or specified)

2.3.2.3.1.4. TACAN Arc +/- 2 miles

2.3.2.3.2. **Q-.** Performed departure as published/directed and complied with all restrictions. Slow to apply course/heading corrections. Minor deviations from published procedures not affecting safety of flight. Control rough or erratic. Hesitant in application of corrections.

2.3.2.3.2.1. Altitude +/- 300 ft (intermediate level off)

2.3.2.3.2.2. Airspeed +/- 15 Kts/.04 Mach

2.3.2.3.2.3. Heading/Course +/- 15 degrees (when assigned or specified)

2.3.2.3.2.4. TACAN Arc +/- 3 miles

2.3.2.3.3. **U.** Failed to comply with published/directed departure instructions or exceeded Q-criteria. Failed to maintain positive rate of climb. **NOTE:** Airspeed “+” tolerance does not apply unless assigned/restricted by ATC/tech data. Must not exceed placard speeds.

2.3.2.4. AREA 12 – CRUISE/NAVIGATION:

2.3.2.4.1. **Q.** Leveled off smoothly at specified altitude within +/- 200 ft. Established proper cruise airspeed promptly. Properly used appropriate navigation equipment/procedures. Ensured nav aids were properly tuned, identified and monitored. Aware of position at all times. Visually cleared the area. Maintained/adjusted speeds as required to meet mission timing.

2.3.2.4.2. **Q-.** Level off erratic, maintained altitude within +/- 300 ft. Slow in establishing proper cruise airspeed. Minor errors in procedure/use of navigation equipment. Some deviations in turning, identifying and monitoring nav aids. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and maintaining/adjusting speed to meet mission requirements. Visually cleared the area.

2.3.2.4.3. **U.** Level off erratic, exceeded Q- criteria. Excessive delay or failed to establish proper cruise airspeed. Major errors in procedures/use of navigation equipment to the extent that position was unreliable. Did not maintain/adjust speed to meet mission requirements. Did not visually clear the area.

2.3.2.5. AREA 13 – ATC Communications/IFF/SIF:

2.3.2.5.1. **Q.** Complete knowledge of and compliance with correct procedures. Transmissions concise with proper terminology utilized. Complied with and acknowledged all required instructions. Understood clearances and complied with controlling agency instructions. Made required radio calls. Correctly operated equipment.

2.3.2.5.2. **Q-.** Occasional deviations from correct procedures that required retransmissions. Slow in initiating required actions. Transmissions contained extraneous information, were not in proper sequence and non-standard terminology. Understood clearances and complied with controlling agency instructions with minor errors or omission not effecting mission safety. Slow to comply with controlling agency instructions. Missed several radio calls from ATC. Minor errors, deviations, or omissions in operating equipment were observed.

2.3.2.5.3. **U.** Incorrect procedures or poor performance caused confusion and reduced mission effectiveness. Omitted required checks or procedures. Erroneous IFF/SIF codes used. Did not understand clearance or accepted clearance that could not be complied with. Did not read back clearance accurately (when required). Did not comply with clearance. Did not make required reports. Major errors, deviations, or omissions in operating equipment.

2.3.2.6. AREA 14 – UNUSUAL ATTITUDES:

2.3.2.6.1. **Q.** Smooth positive recovery to level flight and correct recovery procedures used, or demonstrated satisfactory knowledge of correct procedures.

2.3.2.6.2. **Q-.** Slow to analyze attitude or erratic in recovery to level flight, correct recovery procedures followed.

2.3.2.6.3. **U.** Unable to determine attitude or improper recovery procedures. **NOTE:** Unusual Attitudes may be verbally accomplished as part of the EPE.

2.3.2.7. AREA 15 – HOLDING:

2.3.2.7.1. **Q.** Entry and holding procedures according to applicable directives.

2.3.2.7.1.1. Altitude +/- 200 ft

2.3.2.7.1.2. Airspeed +/- 15 kts

2.3.2.7.2. **Q-.** Inappropriate entry and holding procedures but remained within airspace limits.

2.3.2.7.2.1. Altitudes +/- 300 ft

2.3.2.7.2.2. Airspeed +/- 20 kts

2.3.2.7.3. **U.** Exceeded holding airspace limits or exceeded Q- criteria.

2.3.2.8. AREA 16 - AIR REFUELING:

2.3.2.8.1. **Q.** Established a smooth approach and maintained proper refueling position. Aircraft control was positive and smooth. Satisfactorily followed procedures and techniques outlined in the flight manual, checklist and local directives. Continuous contact for 15 minutes for initial qualification, with no more than 3 inadvertent disconnects. Continuous contact for 10 minutes with no more than 3 inadvertent disconnects for recurring evaluations. Used or described correct procedures for emergency separation.

2.3.2.8.2. **Q-.** Slow to recognize and apply needed corrections to establish a smooth approach and maintain proper refueling position. Aircraft control not always positive and smooth, but adequate. Accomplished procedures required by the flight manual and local directives with minor errors, deviations, and/or omissions that did not affect safety of flight or the successful completion of the air refueling. Exceeded the Q criteria. Minor errors deviations, and/or omissions in emergency separation procedures.

2.3.2.8.3. **U.** Erratic or dangerous during approach and in the refueling position. Errors/deviations/omissions that affected flight safety and/or the successful completion of air refueling. Exceeded the Q- criteria. Major errors/deviations/omissions in emergency separation procedures. **NOTE 1:** Pilots should perform a rendezvous and a practice emergency separation. Not required for the instructor pilots. **NOTE 2:** An autopilot-off air refueling contact may be required at the discretion of the SEFE. **NOTE 3:** Instructor pilots will perform and instruct an air refueling boom envelope limits demonstration. Inadvertent disconnects are permissible during demonstration. Instructor pilot continuous contact time may be reduced to 5 minutes.

2.3.2.9. AREA 17 – DESCENT:

2.3.2.9.1. **Q.** Performed descent as directed. Complied with all restrictions. Visually cleared the area. Accomplished required checks in accordance with flight manual.

2.3.2.9.1.1. Altitude +/- 200 ft (level off)

2.3.2.9.1.2. Airspeed +/- 10 kts

2.3.2.9.1.3. Heading/Course +/- 10 degrees (when assigned or specified)

2.3.2.9.1.4. TACAN Arc +/- 2 miles

2.3.2.9.2. **Q-.** Performed descent as directed with minor deviations. Visually cleared the area. Slow to accomplish required checks in accordance with the flight manual.

2.3.2.9.2.1. Altitude +/- 300 ft (level off)

2.3.2.9.2.2. Airspeed +/- 15 kts

2.3.2.9.2.3. Heading/Course +/- 15 degrees (when assigned or specified)

2.3.2.9.2.4. TACAN Arc +/- 3 miles

2.3.2.9.3. **U.** Performed descent with major deviations. Did not accomplish required checks. Failed to visually clear the area adequately. Exceeded Q- criteria. **NOTE:** Airspeed “+” tolerance does not apply unless assigned/restricted by ATC/tech data. Must not exceed placard speeds.

2.3.2.10. AREA 18 – IFR TRAFFIC PATTERN:

2.3.2.10.1. **Q.** Procedures and checklist items required by the flight manual and applicable directives were accomplished. Followed controller’s instructions and complied with all restrictions. Made corrections smoothly and timely.

2.3.2.10.1.1. Altitude +/- 200 ft

2.3.2.10.1.2. Airspeed + 20/-5 kts (Did not exceed placard speeds)

2.3.2.10.1.3. Heading/Course +/- 15 degrees

2.3.2.10.1.4. TACAN Arc +/- 2 miles

2.3.2.10.2. **Q-.** Procedures and checklist items required by the flight manual and applicable directives were accomplished with omissions or deviations. Slow or hesitant in following controller’s instructions. Over-controlled slightly or occasionally and/or slow in making corrections.

2.3.2.10.2.1. Altitude +/- 300 ft

2.3.2.10.2.2. Airspeed + 30/-10 kts (Did not exceed placard speeds)

2.3.2.10.2.3. Heading/Course +/- 20 degrees

2.3.2.10.2.4. TACAN Arc +/- 3 miles

2.3.2.10.3. **U.** Made major deviations or omissions in procedures and checklist items required by the flight manual and applicable directives. Failed to comply with controller’s instructions. Exceeded Q- criteria.

2.3.2.11. AREA 19 - PRECISION APPROACH:

2.3.2.11.1. **Q.** Performed procedures as directed and according to applicable flight manual. Smooth and timely corrections to azimuth and glide slope. Established initial glide path and adjusted for deviations throughout the approach. Complied with decision height. Position would have permitted a safe landing.

2.3.2.11.1.1. Glide slope: Did not exceed slightly above or below (PAR) or +/- 1 dot (ILS)

2.3.2.11.1.2. Airspeed +10/-5 kts

2.3.2.11.1.3. Heading/Course +/- 5 degrees of controller’s instructions (PAR) or +/- 1 dot (ILS)

2.3.2.11.1.4. DH +50/ -25 ft (ILS) or prompt response to DH (PAR)

2.3.2.11.2. **Q-** Performed procedures with minor deviations. Slow to respond to controller's instructions/make corrections. Slow to establish initial glide path and adjust for deviations throughout the approach. Complied with decision height. Position would have permitted a safe landing.

2.3.2.11.2.1. Glideslope Within PAR safety limits or 2 dots above, 1 dot below (ILS)

2.3.2.11.2.2. Airspeed +15/-5 kts

2.3.2.11.2.3. Heading/Course +/-15 degrees of controller instructions (PAR) or +/- 2 dots (ILS)

2.3.2.11.2.4. DH +75/-50 ft

2.3.2.11.3. **U.** Performed procedures with major deviations. Erratic corrections. Did not respond to controller's instructions and/or exceeded Q- criteria. Did not comply with decision height and/or position would not have permitted a safe landing. Too high or below glide path for safe approach. **NOTE 1:** Both a PAR and ILS are required if equipment, facilities and traffic flow permit. If both are not available, the flight evaluation may be completed with one precision approach flown. Do not verbally evaluate the approach that was not flown.

2.3.2.12. **AREA 20 – NON-PRECISION APPROACH:**

2.3.2.12.1. **Q.** Performed procedures as published/directed and according to applicable flight manual. Made smooth and timely corrections. Arrived at MDA prior to or at VDP. Position would have permitted safe landing.

2.3.2.12.1.1. Airspeed: 10/-5 kts

2.3.2.12.1.2. Altitude: +100/-50 ft (after reaching MDA and prior to MAP)

2.3.2.12.1.3. Heading/Course: +/- 10 degrees or within one dot

2.3.2.12.1.4. Timing computed to within 10% of actual timing (when applicable)

2.3.2.12.2. **Q-** Performed procedures with minor deviations. Slow to make corrections. Arrived at MDA prior to or at missed approach point. Position would have allowed safe landing.

2.3.2.12.2.1. Airspeed: +15/-5 kts

2.3.2.12.2.2. Altitude: 125/-50 ft (after reaching MDA and prior to MAP)

2.3.2.12.2.3. Heading/Course: +/- 15 degrees or within two dots

2.3.2.12.2.4. Timing computed to within 20% of actual timing (when applicable)

2.3.2.12.3. **U.** Performed procedures with major deviations. Erratic corrections. Exceeded Q- criteria. Did not arrive at MDA prior to or at missed approach point. Position would not have permitted safe landing. Failed to compute or adjust timing to determine MAP (when applicable).

2.3.2.13. **AREA 21 – Cat II/IIIa ILS PROCEDURES:**

2.3.2.13.1. **Q.** Performed procedures as published and according to flight manual and applicable directives. Ensured the aircraft systems were configured correctly at the proper

time. Monitored the aircraft and systems throughout the maneuver and took corrective action for any malfunctions or deviations. Proper landing/go-around procedures were applied.

2.3.2.13.2. **Q-** Performed procedures with minor deviations. Slow to configure aircraft systems. Slow to recognize and correct aircraft/system deviations. Slow to take correct actions at alert/decision height.

2.3.2.13.3. **U.** Performed procedures with major deviations. Did not recognize aircraft/system deviations or take corrective action. Exceeded Q- criteria. **NOTE:** A coupled approach to an Auto-Go and Autoland as well as a 3 engine manual ILS to CAT II minimums with a 3 engine missed approach is required for CAT II/IIIa certification.

2.3.2.14. **AREA 22 - MISSED APPROACH:**

2.3.2.14.1. **Q.** Executed missed approach as published or directed. Completed all procedures according to applicable flight manual and directives.

2.3.2.14.1.1. Level off altitude: +/- 200 ft

2.3.2.14.1.2. Airspeed: +/- 10 kts (see note 2)

2.3.2.14.1.3. Heading/Course: +/- 10 degrees

2.3.2.14.1.4. TACAN Arc: +/- 2 miles

2.3.2.14.2. **Q-** Executed missed approach with minor deviations. Slow to comply with published procedures, controller's instructions, flight manual procedures or directives.

2.3.2.14.2.1. Level off altitude: +/- 300 ft

2.3.2.14.2.2. Airspeed: +15/-10 kts (see note 2)

2.3.2.14.2.3. Course/Heading: +/- 15 degrees

2.3.2.14.2.4. TACAN Arc: +/- 3 miles

2.3.2.14.3. **U.** Executed missed approach with major deviations. Failed to comply with published procedure, controller's instructions, flight manual procedures, or directives. Exceeded Q- criteria. **NOTE 1:** Missed Approach must be initiated from an Instrument Approach. **NOTE 2:** Airspeed "+" tolerances do not apply unless assigned/restricted by ATC/tech data. Must not exceed placard speeds.

2.3.2.15. **AREA 23 – GO-AROUND:**

2.3.2.15.1. **Q.** Aircraft control was smooth and positive. Promptly established appropriate go-around pitch and power settings. Performed procedures IAW the flight manual. Complied with pattern/maneuver and flap retraction speed limitations.

2.3.2.15.2. **Q-** Slow to establish appropriate go around pitch and power settings. Minor errors/deviations/omissions in flight manual procedures. Complied with pattern/maneuver and flap retraction speed limitations.

2.3.2.15.3. **U.** Rough or erratic aircraft control. Pitch and power settings were inappropriate. Major errors/deviations/omissions in flight manual procedures. Failed to comply with pattern/maneuver and/or flap retraction speed limitations. **NOTE 1:** May be flown from any type of approach, IFR or VFR. SEFE may direct a go-around at any point in an approach or landing to evaluate go-around procedures. **NOTE 2:** May be graded during a missed approach.

2.3.2.16. AREA 24 - VFR PATTERN:

2.3.2.16.1. **Q.** Performed traffic patterns according to the flight manual, operational procedures manual and directives. Aircraft control was positive and smooth. Effectively cleared ahead of flight path.

2.3.2.16.1.1. Pattern Altitude: +/- 200 ft

2.3.2.16.1.2. Airspeed (Pattern): +20/-5 kts (Did not exceed Flap Placard)

2.3.2.16.1.3. Airspeed (final): +10/-5 kts

2.3.2.16.2. **Q-.** Performed traffic patterns with minor deviations to procedures outlined in the flight manual, operational procedures manual, and local directives. Aircraft control was not consistently positive and smooth, but safe. Adequately cleared area of intended flight.

2.3.2.16.2.1. Altitude: +/- 300 ft

2.3.2.16.2.2. Airspeed (Pattern): +30/-5 kts (Did not exceed Flap Placard)

2.3.2.16.2.3. Airspeed (Final): +15/-5 kts

2.3.2.16.3. **U.** Traffic patterns not performed according to procedures outlined in the flight manual, operational procedures manual, and local directives. Erratic aircraft control. Did not clear area of intended flight. Exceeded Q- criteria. Significant over/under shoot of final.

2.3.2.17. AREA 25 – LANDINGS:

2.3.2.17.1. **Q.** Performed landings according to procedures outlined in the flight manual, operational procedures manual and local directives. Correct reverse thrust procedures.

2.3.2.17.1.1. Threshold Speed: +10/-5 kts

2.3.2.17.1.2. Touchdown Point: +/- 1000 feet as compared to computed flare distance and within stopping distance for runway available.

2.3.2.17.2. **Q-.** Landings performed according to flight manual procedures but outside the tolerances in “Q” criteria. Touchdown within stopping distance for runway available, and within the first 3000 feet of runway available. Slow reverse thrust procedures or minor deviations.

2.3.2.17.3. **U.** Landings not performed according to procedures outlined in the flight manual, operational procedures manual and local directives. Improper reverse thrust procedures. Exceeded Q- criteria. **NOTE 1:** Perform an outboard engine out reverse thrust landing. **NOTE 2:** Perform both a right and left seat landing. Not required for instructor pilots.

2.3.2.18. AREA 26 - TOUCH and GO LANDINGS:

2.3.2.18.1. **Q.** Complied with flight manual procedures, operational restrictions, and local directives. Ensured adequate runway length to permit a safe stop. Corrected to centerline prior to rotation. Smooth, positive aircraft control throughout takeoff phase.

2.3.2.18.2. **Q-.** Minor errors/deviations/omissions in the flight manual procedures, operational restrictions, or local directives. Ensured adequate runway length to permit a safe stop. Slow to correct to centerline. Control rough, erratic or hesitant during takeoff phase.

2.3.2.18.3. **U.** Major errors/deviations/omissions in the flight manual procedures, operational restrictions or local directives. Failed to ensure adequate runway length available to permit a safe stop. Did not correct to centerline. Lift off potentially dangerous. Over controlled aircraft. **NOTE 1:** Instructor pilots will demonstrate and instruct a 3 engine touch (outboard engine out)/4 engine go. Initial instructor evaluations will include a touch and go landing performed as pilot flying from the right seat. These can be performed concurrently.

2.3.2.19. AREA 27 - SIMULATED OUTBOARD ENGINE FAILURE (TAKEOFF CONTINUED):

2.3.2.19.1. **Q.** Performed procedures according to the flight manual, operational procedures manual and local directives. Smooth aircraft control, maintained positive climb/level altitude; maintained directional control; reconfigured the aircraft for maximum performance capabilities. Accomplished emergency procedure checklists and reviewed considerations.

2.3.2.19.2. **Q-.** Performed procedures with minor deviations. Aircraft control was somewhat erratic. Did not maintain positive climb when capable but did not lose altitude. Slow to apply proper inputs. Slow to call for and accomplish required checklist.

2.3.2.19.3. **U.** Erratic aircraft control compromising safety. Poor asymmetric control. Lost unnecessary altitude. Did not perform emergency procedures checklists or accomplished with major deviations. **NOTE 1:** Instructor pilots will demonstrate and instruct this area.

2.3.2.20. AREA 28 - SIMULATED OUTBOARD ENGINE OUT (Approach/Missed Approach):

2.3.2.20.1. **Q.** Accomplished emergency procedure checklist and reviewed considerations. Performed applicable approach procedures outlined in the flight manual and other directives. Smooth aircraft response to applicable controller instructions. Complied with MDA/DH and initiated Missed Approach instructions. Maintained stable aircraft control and established positive climb when able. Aircraft control was positive and smooth.

2.3.2.20.2. **Q-.** Performed procedures with minor deviations. Slow to review considerations. Aircraft control somewhat erratic but safe. Complied with MDA/DH. Slow to establish the missed approach attitude but maintained positive climb when able.

2.3.2.20.3. **U.** Did not perform applicable emergency procedures or with major deviations. Erratic aircraft control compromising safety. Did not adhere to MDA/DH. Poor asymmetric control on missed approach. Did not establish/maintain positive climb when able. Failed to recognize and apply corrections to avoid over/undershoots, did not comply with procedures outlined in the flight manual/other directives. **NOTE 1:** Instructor pilots will demonstrate and instruct this area.

2.3.2.21. AREA 29 - SYSTEMS KNOWLEDGE/OPERATION:

2.3.2.21.1. **Q.** Satisfactory knowledge of systems ensuring effective operation within prescribed limits and diagnosis of problems. Explained proper corrective action for each type of malfunction. Effectively utilized checklist and/or available aids.

2.3.2.21.2. **Q-.** Incomplete knowledge of system operating limits. Slow to analyze problems or take proper corrective action. Did not effectively use checklist and/or available aids.

2.3.2.21.3. **U.** Unsatisfactory knowledge of systems. Unable to analyze problems or take corrective action. Did not use checklist and/or available aids. **NOTE:** A sampling of the following areas should be discussed/evaluated: Electrical, Hydraulic, Air Conditioning/Heating/Ventilation, Pressurization, Fuel/Oil, Anti-ice, Engines, Oxygen system.

2.3.2.22. AREA 30 - AFTER LANDING:

2.3.2.22.1. **Q.** Appropriate after landing checks and aircraft taxi procedures accomplished in accordance with the flight manual and applicable directives. Taxi speeds appropriate for conditions. Visually cleared area. Safely followed marshaling instructions. Completed all required forms accurately.

2.3.2.22.2. **Q-.** Same as Q except minor errors, deviations or omissions were noted in performance of after landing check and/or aircraft taxi procedures in which safety was not jeopardized. Taxi speeds appropriate for conditions. Visually cleared area. Some confusion over marshaller's instructions. Required forms completed with minor inaccuracies.

2.3.2.22.3. **U.** Major errors, deviations or omissions were made in performance of after landing check or aircraft taxi procedures, which could have jeopardized safety. Taxi speeds inappropriate for conditions. Failed to clear. Disregarded marshaller's instructions, or allowed marshaller to direct an unsafe situation. Data recorded inaccurately or omitted.

Chapter 3

NAVIGATOR EVALUATIONS

3.1. Instructions. The grading criteria contained in this chapter are applicable to evaluations for navigators and were established by experience, policies, and procedures set forth in flight manuals and other directives. Flights conducted over land on established airways will make maximum use of available equipment and aids. SEFEs must realize that grading criteria contained herein cannot cover every situation. Written parameters must be tempered with mission objectives and, more importantly, mission/task accomplishment in the determination of overall aircrew performance.

3.1.1. Qualification Evaluations:

3.1.1.1. **Ground Requisites.** Qualification Examination (open book), Emergency Procedures Examination (closed book), Instrument Refresher Course (IRC), written Instrument Examination, Emergency Procedures Evaluation (EPE) and Publications Check.

3.1.1.2. **Flight Phase.** All areas required in Table 3.1 under “QUAL” will be evaluated.

3.1.2. Instructor Evaluations:

3.1.2.1. **Instructor Evaluations.** The SEFE may, during any phase of the evaluation, require the instructor examinee to demonstrate and/or present verbal explanations to the SEFE on air refueling, emergency procedures/equipment, aircraft systems (location, configuration, operation, procedures, and techniques), mission knowledge or any other operating procedures and techniques. Demonstrations will be pre-briefed to the examinee and will be accomplished at an appropriate time so as not to interfere with the examinee's crew duties and pacing. Instructors on recurring evaluations should instruct based on the needs of the student (actual or simulated). All areas required in Table 3.1 under “INSTR” will be evaluated.

3.1.2.2. **Instructor Requalification Evaluations.** Former instructors who have regained currency and qualification in the aircraft, and who meet training volume criteria to re-qualify as instructors will receive an instructor flight evaluation consisting of a student pre-briefing, in flight instruction based on student (real or simulated) needs, and a post-flight critique TAPR. In flight instruction will include the areas listed in Table 3.1, under “INSTR,” but no other specific in flight events are required. If the former instructor requires initial instructor training/evaluation based on guidance in the training volume, or if the instructor requalification is concurrent with the aircraft requalification, comply with para 3.1.3.1.

3.1.3. **Emergency Procedures Evaluation (EPE).** Additional guidance: Use the Emergency Procedures criteria to evaluate Emergency Procedures Evaluations. The EPE satisfies the in-flight requirements for Area 4, Emergency Procedures, if no actual emergency procedure is experienced in flight.

3.2. Evaluation Requirements. Table 3.1 lists areas for navigator qualification, and instructor evaluations. An “R” indicates a requirement for that evaluation. The NOTES column may include an “X” which refers to a general note found in the specific grading criteria table.

Table 3.1. Navigator Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	INSTR
1. Personal/Professional Equipment		R	

2. Mission Planning		R	
3. Checklist Procedures		R	
4. Emergency Procedures (General)		R	
5. Emergency Procedures (Boldface)(Critical)			
6. Safety (Critical)		R	
7. Airmanship/Aircrew Discipline (Critical)		R	
8. Crew Coordination/CRM		R	
9. Flight Plan/Charts	X	R	
10. Pre-Takeoff		R	
11. Departure		R	
12. Instrument Checks		R	
13. Dead Reckoning	X	R	
14. Pacing		R	
15. Systems Navigation Leg	X	R	
16. Comm/IFF/SIF		R	
17. System Knowledge/Operation	X	R	
18. Rendezvous / Air Refueling	X	R	
19. Descent/Approach/Landing		R	
20. Postflight/Debrief		R	
21. Operational Execution	X	R	
22. Communications, Logs, and Reports		R	
23. Instructional Ability			R
24. Briefings/Critique			R
25. Demonstration and Performance			R

3.3. Grading Criteria:

3.3.1. For the following general areas, see [chapter 1](#) for grading criteria:

3.3.1.1. Qualification:

- 3.3.1.1.1. Personal/Professional Equipment.
- 3.3.1.1.2. Mission Planning.
- 3.3.1.1.3. Checklist Procedures.
- 3.3.1.1.4. Emergency Procedures. (General)
- 3.3.1.1.5. Safety. (Critical)

3.3.1.1.6. Airmanship/Aircrew Discipline. (Critical)

3.3.1.1.7. Crew Coordination/CRM.

3.3.1.1.8. Postflight/Debrief.

3.3.1.1.9. Operational Execution.

3.3.1.1.10. Communications, Logs and Reports.

3.3.1.2. Instructor:

3.3.1.2.1. Instructional Ability.

3.3.1.2.2. Briefings/Critique.

3.3.1.2.3. Demonstration and Performance.

3.3.2. Navigator-Specific Grading Criteria:

3.3.2.1. AREA 9 - FLIGHT PLAN/CHARTS:

3.3.2.1.1. **Q** . Selected current navigation charts of proper scale and type for the mission. Charts and flight plan were prepared in accordance with the flight manual and governing directives. Route was plotted with errors not to exceed 5 NM. Flight plan was complete with no more than minor errors or omissions. No error exceeded:

3.3.2.1.1.1. Heading: +/-5 degrees

3.3.2.1.1.2. Time: +/-2 minutes

3.3.2.1.2. **Q** -. No more than one error made in transcribing coordinates. Route plotting errors did not exceed 10 NM. No more than four errors exceeded Q tolerances and no error exceeded:

3.3.2.1.2.1. Heading: +/-10 degrees

3.3.2.1.2.2. Time: +/-4 minutes

3.3.2.1.3. **U**. Flight plan or chart was not completed, or contained major errors or omissions, which would affect mission accomplishment. Selected improper or obsolete charts. Exceeded Q- criteria. **NOTE 1:** Failure to check the Computer Flight Plan (CFP) when used for current route of flight will result in an UNQUALIFIED grade in this area. **NOTE 2:** Errors that occur as a result of a previous error will not be considered when applying the grading criteria.

3.3.2.2. AREA 10 - PRE-TAKEOFF:

3.3.2.2.1. **Q**. Completed all required checks. Recognized evidence of malfunctions and took proper corrective actions. Was knowledgeable of applicable sections and checked AFTO Forms 781. Monitored and copied clearance. Coordinated with the pilots on the procedures to be followed. If required, gave precise countdown for start engines, taxi and takeoff. Cross-checked instruments and navigation aids.

3.3.2.2.2. **Q** -. Same as Q except for minor procedural deviations which did not result in delay or misunderstanding of departure procedures.

3.3.2.2.3. **U**. Did not accomplish all required checklist items. Was not prepared for takeoff. When required, did not accomplish countdown for engine start, taxi and takeoff. Was not aware of ATC clearance.

3.3.2.3. AREA 11 – DEPARTURE:

3.3.2.3.1. **Q.** Monitored headings, altitudes and aircraft position throughout the departure. Provided headings, ETAs and other required information in a timely manner. Ensured adequate terrain clearance by monitoring the departure on airborne radar and followed through on a SID, if applicable.

3.3.2.3.2. **Q-.** Monitored headings, altitudes, position and terrain clearance. Was slow to provide headings, ETAs or other appropriate information. Performance did not degrade mission accomplishment nor compromise flight safety. Procedures to monitor the departure/SID were minimally acceptable.

3.3.2.3.3. **U.** Did not monitor headings, altitude or terrain clearance during the departure. Was not aware of aircraft position and was unable to provide updated information when required. Did not use a SID or appropriate local area chart.

3.3.2.4. AREA 12 – INSTRUMENT CHECKS:

3.3.2.4.1. **Q.** Correctly computed deviation checks when required by the flight manual or mission requirements. Correctly computed TAS check when a known or suspected TAS instrument failure occurs. Errors did not exceed 1 degree or 4 knots. Compass cross checks were made periodically and other instruments were monitored as applicable.

3.3.2.4.2. **Q-.** Same as for Q except minor errors in readings or computations were made not affecting accuracy of checks by more than 2 degrees or 8 knots.

3.3.2.4.3. **U.** Did not accomplish deviation or TAS checks when required. Computation errors exceeded Q- criteria. Did not monitor other instruments as applicable.

3.3.2.5. AREA 13 - DEAD RECKONING:

3.3.2.5.1. **Q.** During general navigation, did not allow the airplane to deviate outside the ATC allowable airspace and in no case was the deviation more than 10 NM (4 NM or as specified for operations below FL 180) from the course. Did not deviate outside the ATC assigned/protected lateral airspace. Met/attempted to meet planned air refueling mission timing using all reasonable effort. If unable to make the refueling time, coordinated a revised ARCT. No training was lost by the tanker or receiver which could be attributed to the navigator's error. Navigation leg departure position was accurate within 5 NM.

3.3.2.5.2. **Q-.** During general navigation, did not allow the plane to deviate outside the ATC allowable airspace and in no case was the deviation more than 15 NM (10 NM or as specified for operations below FL 180) from the course. Ineffective timing control resulted in unnecessarily delaying the air refueling rendezvous; however, no significant training was lost by either tanker or receiver. Navigation leg departure position was accurate within 10 NM.

3.3.2.5.3. **U.** Exceeded Q- standards. Allowed the aircraft to deviate outside ATC assigned/protected lateral airspace. Significant training was lost by tanker/receiver. **NOTE 1:** Navigators must demonstrate procedures and techniques of INS/FMS navigation as the primary means of navigation (aid to DR) for the entire mission. **NOTE 2:** General navigation for the navigator commences upon level off and ceases when the pilot or air traffic controller assumes navigation to the terminal facility.

3.3.2.6. AREA 14 – PACING:

3.3.2.6.1. **Q.** Held an even work flow achieving maximum use of available time. Stayed ahead of flight progress. Ensured accurate and timely position reports. Expeditiously dealt with deviations from original flight plan. Navigation leg departure position obtained no later than 10 minutes after departure point.

3.3.2.6.2. **Q-.** Pacing was adequate, but occasionally worked behind aircraft. Position reports not over 5 minutes late and turn points not over flown by more than 2 minutes. Navigation leg departure position was obtained no later than 15 minutes after navigation leg departure point.

3.3.2.6.3. **U.** Overall pacing and fixing schedule was unsatisfactory. Worked behind aircraft throughout most of flight. Position reports were late by more than 5 minutes and turn points were over flown by more than 2 minutes.

3.3.2.7. AREA 15 SYSTEMS NAVIGATION LEG:

3.3.2.7.1. **Q .** Performed Systems Navigation leg IAW AFI 11-2E-4 Vol 1. Obtained two radar fixes within the allotted time. Radar fixes were recorded and plotted within 10 nautical miles of computer position. A start and end navigation position was recorded. Terminal fix error did not exceed 10 nautical miles.

3.3.2.7.2. **Q-.** Obtained two radar fixes within the allotted time. Radar fixes were recorded and plotted within 15 nautical miles of computer position. A start or end navigation position was recorded. Terminal fix error did not exceed 15 nautical miles.

3.3.2.7.3. **U.** Did not perform the Systems Navigation Leg IAW governing directives. Exceeded Q- criteria. **NOTE 1:** If the systems navigation leg must be terminated or abbreviated for weather, equipment malfunction, an emergency or mission profile change, the SEFE may give credit for this requirement if the minimum accomplishments were met.

3.3.2.8. AREA 16 - COMM/IFF/SIF:

3.3.2.8.1. **Q.** Satisfactory knowledge of and compliance with correct procedures and required instructions, including Safe Passage. Voice communications were prompt and clear.

3.3.2.8.2. **Q-.** Deviations or incorrect procedures resulted in excessive transmissions. Slow in initiating required actions. Limited knowledge of procedures and equipment. Equipment malfunctions were incorrectly analyzed or corrective actions were incomplete or incorrect. Variations or omissions in procedures or faulty techniques caused significant degradation of equipment performance. In any case, actions would not have damaged equipment or jeopardized sortie success.

3.3.2.8.3. **U.** Incorrect procedures or non-compliance caused excessive confusion. Actions would have damaged equipment or jeopardized sortie success.

3.3.2.9. AREA 17 - SYSTEM KNOWLEDGE/OPERATION:

3.3.2.9.1. **Q.** Navigation equipment was operated IAW prescribed procedures with no more than minor deviations or omissions that could not cause damage to equipment or significantly degrade system performance. Equipment malfunctions were correctly analyzed and corrected when possible for satisfactory equipment capability. INS/FMS coordinates were never more than 5 NM in error provided there were no equipment malfunctions. Radar positioning accuracy did not exceed 10 NM (using 50 NM or less range).

3.3.2.9.2. **Q-** Navigation equipment was not operated IAW prescribed procedures. Equipment malfunctions were incorrectly analyzed or corrective actions were incomplete or incorrect. Variations or omissions in prescribed procedures, erroneous data insertion or faulty techniques caused a significant degradation of equipment performance. In any case, actions could not have damaged equipment or jeopardized mission objectives. INS/FMS coordinates were never more than 10 NM in error provided there were no equipment malfunctions. Radar positioning accuracy did not exceed 15 NM (using 50 NM or less range).

3.3.2.9.3. **U.** Exceeded Q- criteria. **NOTE:** The extent of in flight corrective action required of the navigator to overcome a search radar malfunction will be determined by the mission requirements and the criticality of the malfunctioning radar

3.3.2.10. **AREA 18 - RENDEZVOUS /AIR REFUELING:**

3.3.2.10.1. **Q.** Rendezvous and air refueling procedures were in accordance with prescribed directives and all checklists were accomplished with no more than minor discrepancies. Every reasonable effort was made to make RVIP timing within +/- 1 minute, or the ARCT within +/- 2 minutes of scheduled. Positive identification of the tanker radar return was made. Turn range and offset were computed, cross-checked and correctly used within 2 NM.

3.3.2.10.2. **Q-** Displayed lack of knowledge and familiarity with the checklists and/or rendezvous and air refueling procedures. However, knowledge was sufficient to ensure rendezvous and air refueling with minimal loss of training time/activity. Computations were in error by more than 2 NM, but did not exceed 5 NM in error. Arrival at ARCT greater than 2 minutes, but less than 4 minutes. RVIP timing was greater than 1 minute but did not exceed 2 minutes.

3.3.2.10.3. **U.** Displayed lack of knowledge and familiarity with the checklists and/or rendezvous and air refueling procedures to the extent that the rendezvous or air refueling was jeopardized or precluded or significant training time/activity was lost. Effort to make timing good was possible to within 2 minutes but failed to attempt. Failure to accomplish positive aircraft identification resulted in an actual or attempted rendezvous with the wrong aircraft. Timing and computations exceeded Q- criteria. **NOTE 1:** Navigators must demonstrate proficiency in receiver air refueling tactics IAW TO 1E-4B-1(II) and ATP-56(B). **NOTE 2:** Air refueling includes rendezvous (point parallel or en route), inter-plane communications, breakaway and post-refueling. **NOTE 3:** Every effort will be made to evaluate air refueling procedures in-flight. However if a tanker rendezvous cancels on the same day of the planned sortie, air refueling procedures may be accomplished verbally for recurring evaluations and at the discretion of the SEFE for requalification evaluations. For initial qualification evaluations, air refueling rendezvous procedures must be evaluated in-flight with a tanker.

3.3.2.11. **AREA 19 - DESCENT/APPROACH/LANDING:**

3.3.2.11.1. **Q.** Monitored aircraft position and approach instructions. Furnished the pilot with headings, ETAs, and other information when required. Thoroughly understood approach and/or missed approach instructions and procedures. Monitored appropriate FLIP terminal approach plate. Ensured terrain clearance.

3.3.2.11.2. **Q-** Monitored aircraft position but did not monitor or understand approach and/or missed approach instructions/procedures. Slow in providing headings, ETAs, and other information when required.

3.3.2.11.3. U. Failed to monitor aircraft position. Did not ensure terrain clearance during approach. Exceeded Q- criteria.

Chapter 4

FLIGHT ENGINEER EVALUATIONS

4.1. Instructions. The grading criteria contained in this chapter are applicable to evaluations for flight engineers and were established by experience, policies and procedures set forth in flight manuals and other directives. SEFEs must realize that grading criteria contained herein cannot cover every situation. Written parameters must be tempered with mission objectives and more importantly, mission/task accomplishment in the determination of overall aircrew performance.

4.1.1. Qualification Evaluations:

4.1.1.1. **Ground Requisites.** Qualification Examination (open book), Emergency Procedures Examination (closed book and Boldface/CAPs), Emergency Procedures Evaluation (EPE), and Publications Check.

4.1.1.2. **Flight Phase.** All areas required in Table 4.1 under “QUAL” will be evaluated.

4.1.2. Instructor Evaluations:

4.1.2.1. **Instructor Evaluations.** The SEFE may, during any phase of the evaluation, require the instructor examinee to demonstrate and/or present verbal explanations to the SEFE on air refueling, emergency procedures/equipment, aircraft systems (location, configuration, operation, procedures, and techniques), mission knowledge or any other operating procedures and techniques. Demonstrations will be pre-briefed to the examinee and will be accomplished at an appropriate time so as not to interfere with the examinee’s crew duties and pacing. Instructors on recurring evaluations should instruct based on the needs of the student (actual or simulated). All areas required in Table 4.1 under “INSTR” will be evaluated.

4.1.2.2. **Instructor Requalification Evaluations.** Former instructors who have regained currency and qualification in the aircraft, and who meet training volume criteria to re-qualify as instructors, will receive an instructor flight evaluation consisting of a student pre-briefing, in flight instruction based on student (real or simulated) needs and a post-flight critique TAPR. In flight instruction will include the areas listed in Table 4.1, under “INSTR,” but no other specific in flight events are required. If the former instructor requires initial instructor training/evaluation based on guidance in the training volume or if the instructor requalification is concurrent with the aircraft requalification, comply with para 4.1.2.

4.1.3. **Emergency Procedures Evaluation (EPE).** Additional guidance: EPEs will evaluate the flight engineer’s performance of all Boldface/CAPs, a cross-section of noncritical emergency procedures, and knowledge and performance of general systems operation. Use the Emergency Procedures – Bold Face criteria for Bold Face/CAPs, and the Emergency Procedures criteria for all other emergency situations given. Use Systems Knowledge/Operation criteria to evaluate general systems operation. The EPE satisfies the in-flight requirements for Area 4, Emergency Procedures, if no actual/simulated emergency procedure is experienced in flight.

4.2. Evaluation Requirements. Table 4.1. lists areas for flight engineer qualification, and instructor evaluations. An “R” indicates a requirement for that evaluation. An “X” in the notes column refers to a general note found in the specific grading criteria table.

Table 4.1. Flight Engineer Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	INSTR
1. Personal/Professional Equipment		R	
2. Mission Planning		R	
3. Checklist Procedures		R	
4. Emergency Procedures (General)		R	
5. Emergency Procedures (Boldface) (Critical)	X	R	
6. Safety (Critical)		R	
7. Airmanship/Aircrew Discipline (Critical)		R	
8. Crew Coordination/CRM		R	
9. Weight and Balance		R	
10. Takeoff and Landing Data		R	
11. Pre-Takeoff	X	R	
12. Takeoff/Climb		R	
13. Cruise		R	
14. Air Refueling		R	
15. System Knowledge/Operation	X	R	
16. Descent/Landing		R	
17. After Landing/Engine Shutdown		R	
18. Postflight/Debrief		R	
19. Operational Execution	X	R	
20. Communications, Logs, and Reports		R	
21. Instructional Ability			R
22. Briefings/Critique			R
23. Demonstration and Performance			R

4.3. Grading Criteria:

4.3.1. For the following common areas, see [chapter 1](#) for grading criteria.

4.3.1.1. Qualification:

4.3.1.1.1. Personal/Professional Equipment.

4.3.1.1.2. Mission Planning.

4.3.1.1.3. Checklist Procedures.

4.3.1.1.4. Emergency Procedures. (General)

4.3.1.1.5. Emergency Procedures. (Boldface) (Critical)

4.3.1.1.6. Safety. (Critical)

4.3.1.1.7. Airmanship/Aircrew Discipline. (Critical)

4.3.1.1.8. Crew Coordination/CRM.

4.3.1.1.9. Post-flight/Debrief.

4.3.1.1.10. Operational Execution

4.3.1.1.11. Communications, Logs and Reports.

4.3.1.2. Instructor:

4.3.1.2.1. Instructional Ability.

4.3.1.2.2. Briefings/Critique.

4.3.1.2.3. Demonstration and Performance.

4.3.2. Flight Engineer-Specific grading Criteria:

4.3.2.1. AREA 9 – WEIGHT AND BALANCE:

4.3.2.1.1. **Q.** Had satisfactory knowledge of aircraft weight and balance directives. Was able to complete DD Form 365-4, *Weight and Balance Clearance Form F-Transportation Tactical*, accurately and legibly; errors were within the tolerances listed in Table 4.2. not to exceed aircraft limits.

4.3.2.1.2. **Q-.** Same as Q, but completed DD Form 365-4 with minor errors or omissions not affecting safety. Limited knowledge of weight and balance directives. Errors exceeded Q tolerances, but were within the tolerances listed in Table 4.2. not to exceed aircraft limits:

4.3.2.1.3. **U.** Unable to complete DD Form 365-4. Errors exceeded Q- tolerances in Table 4.2. and/or aircraft limitations. Inadequate knowledge of weight and balance directives.

4.3.2.2. AREA 10 – TAKEOFF AND LANDING DATA:

4.3.2.2.1. **Q.** Completed TOLD in accordance with existing directives. Fully knowledgeable of performance data and all factors which affect performance data. Computed data within the tolerances listed in Table 4.2.

4.3.2.2.2. **Q-.** Completed TOLD in accordance with existing directives with minor deviations which would not detract from mission effectiveness. Adequate knowledge of performance data and most factors which affect performance data. Computed data outside of Q criteria (column A), but within the tolerances in column B of Table 4.2.

4.3.2.2.3. **U.** Unable to complete TOLD. Computations exceeded criteria in column B of Table 4.2. Inadequate knowledge of performance data.

Table 4.2. Performance criteria.

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Aircraft gross weight	+/- 2000lbs	+/- 7000 lbs
T/O gross weight	+/- 4000 lbs	+/- 7000 lbs

Landing gross weight	+/- 7000 lbs	+/- 10000 lbs
% of MAC	+/- 1.0%	+/- 1.5%
Airspeeds	+/- 2 kts	+/- 4 kts
CFL/Takeoff dist.	+/- 200 ft	+/- 400 ft
Landing dist.	+/- 400 ft	+/- 600 ft
Assumed temp.	+/- 2 degrees C	+/- 5 degrees C
N1	+/- .3%	+/- .6%
Vertical Stab trim	+/- .2 degree	+/- .4 degree

4.3.2.3. AREA 11 – PRE-TAKEOFF:

4.3.2.3.1. **Q.** Accomplished required inspections in a thorough and proficient manner as outlined in applicable manuals, checklists or directives. Properly checked warning/emergency systems; displayed complete knowledge of information contained in AFTO Form 781 series, *Aerospace Vehicle Flight Report and Maintenance Document*. Correctly determined aircraft status.

4.3.2.3.2. **Q-.** Minor deviation in accomplishment of required inspections as outlined in applicable manuals, checklists or directives. Checked warning/emergency systems. Incomplete knowledge of information contained in the AFTO Form 781. Able to determine aircraft status.

4.3.2.3.3. **U.** Accomplished inspections, but not in a thorough or proficient manner. Omitted or improperly checked warning/emergency systems. Little or no knowledge of information in AFTO Form 781. Could not determine correct status of aircraft. **NOTE:** Equipment/system discussions may be accomplished at any time prior to the critique. SEFES must ensure discussions do not interfere with the examinee's crew duties.

4.3.2.4. AREA 12 – TAKEOFF/CLIMB:

4.3.2.4.1. **Q.** Monitored engine/aircraft system indicators; complied with the aircraft commander's briefing; accomplished required procedures as outlined in the applicable flight manual.

4.3.2.4.2. **Q-.** Minor deviations in accomplishing required procedures as outlined in applicable manuals, checklists and directives; monitored engine/aircraft system indicators. Minor exceptions when complying with the aircraft commander's instructions.

4.3.2.4.3. **U.** Did not monitor engine/aircraft systems indicators; did not comply with aircraft commander's instructions; did not accomplish required procedures as outlined in applicable flight manual.

4.3.2.5. AREA 13 - CRUISE:

4.3.2.5.1. **Q.** Satisfactory knowledge in the use of required cruise control/range prediction procedures. Accomplished inflight data logs and proper fuel management procedures. Accomplished checks/procedures as outlined in applicable directives.

4.3.2.5.2. **Q-.** Incomplete but adequate knowledge of cruise control/range prediction procedures, inflight data logs, and fuel management procedures. Accomplished checks/procedures as outlined in applicable directives with minor deviations. Logs contained errors or omissions.

4.3.2.5.3. **U.** Inadequate knowledge of cruise control/range prediction procedures, inflight data logs, and fuel management procedures. Required checks/procedures were inadequate or not accomplished at all.

4.3.2.6. **AREA 14 – AIR REFUELING:**

4.3.2.6.1. **Q.** Accomplished appropriate checklists/flight manual procedures and adhered to other governing directives. Accomplished fuel management as outlined in the applicable flight manual with only minor deviations that did not detract from mission success.

4.3.2.6.2. **Q-.** Accomplished appropriate flight manual procedures with minor deviations or omissions which detracted from, but did not jeopardize mission accomplishment. Unsure of proper fuel management procedures. Failed to demonstrate complete familiarity with the fuel system.

4.3.2.6.3. **U.** Inadequate knowledge of air refueling procedures/directives. Unacceptable procedures for fuel management.

4.3.2.7. **AREA 15 – SYSTEM KNOWLEDGE/OPERATION:**

4.3.2.7.1. **Q.** Satisfactory knowledge of system components, functions and limitations; demonstrated proper management and operation of system; analyzed simulated or actual malfunctions and applied proper corrective action; fully determined status of related systems.

4.3.2.7.2. **Q-.** Incomplete knowledge of system components, functions and limitations; minor deviations in management or operation of systems when analyzing simulated or actual malfunctions and applying corrective action; adequately determined status of related systems.

4.3.2.7.3. **U.** Inadequate knowledge of system components, functions and limitations; improper management or operation of systems; unable to analyze simulated or actual malfunctions or apply corrective action; could not determine status of related systems.

NOTE: System discussion may be accomplished before, during or after the flight prior to critique. Table 4.3. contains systems/areas that should be discussed/evaluated.

Table 4.3. Aircraft systems.

Electrical	Flight Controls/Flaps
Hydraulic	Landing Gear/Brakes/Steering
Air Conditioning/Heating/Ventilation	Doors/hatches
Pressurization	Lighting
Fuel/Oil	Fire Detection
Anti-ice/De-icing	Radio/Navigation Equipment
Engines	Communication/IFF

Oxygen System	Mission Equipment
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4.3.2.8. AREA 16 – DESCENT/LANDING:

4.3.2.8.1. **Q.** Satisfactorily monitored engine/aircraft system indicators; complied with aircraft commander's briefing. Accomplished required checks and procedures as outlined in applicable flight manual.

4.3.2.8.2. **Q-.** Minor deviations in accomplishing required procedures as outlined in applicable manuals, checklists and directives. Monitored engine/aircraft systems indicators; minor exceptions when complying with aircraft commander's briefing.

4.3.2.8.3. **U.** Did not monitor engine/system indicators; did not accomplish required checks or procedures as outlined in applicable flight manual. Did not comply with the aircraft commander's briefing.

4.3.2.9. AREA 17 – AFTER LANDING/ENGINE SHUTDOWN:

4.3.2.9.1. **Q.** Satisfactory knowledge of required procedures as outlined in applicable manuals. Complied with instruction and directives in a satisfactory and timely manner.

4.3.2.9.2. **Q-.** Incomplete knowledge of required procedures as outlined in applicable manuals. Slow to accomplish, or minor deviations in complying with instructions and directives.

4.3.2.9.3. **U.** Inadequate knowledge as outlined in applicable manuals or did not comply with instructions or directives.

Chapter 5

FLIGHT ATTENDANT EVALUATIONS

5.1. Instructions. The grading criteria contained in this chapter are applicable to evaluations for flight attendants and were established by experience, policies and procedures set forth in flight manuals and other directives. SEFEs must realize that grading criteria contained herein cannot cover every situation. Written parameters must be tempered with mission objectives and, more importantly, mission/task accomplishment in the determination of overall aircrew performance.

5.1.1. Qualification Evaluations:

5.1.1.1. **Ground Requisites.** Qualification Examination (open book), Emergency Procedures Examination (closed book), Emergency Procedures Evaluation (EPE), and Publications Check.

5.1.1.2. **Flight Phase.** All areas required in Table 5.1 under “QUAL” will be evaluated.

5.1.2. Instructor Evaluations:

5.1.2.1. **Instructor Evaluations.** The SEFE may, during any phase of the evaluation, require the instructor examinee to demonstrate and/or present verbal explanations to the SEFE on air refueling, emergency procedures/equipment, aircraft systems (location, configuration, operation, procedures, and techniques), mission knowledge or any other operating procedures and techniques. Demonstrations will be pre-briefed to the examinee and will be accomplished at an appropriate time so as not to interfere with the examinee’s crew duties and pacing. Instructors on recurring evaluations should instruct based on the needs of the student (actual or simulated). All areas required in Table 5.1 under “INSTR” will be evaluated.

5.1.2.2. **Instructor Requalification Evaluations.** Former instructors who have regained currency and qualification in the aircraft, and who meet training volume criteria to re-qualify as instructors will receive an instructor flight evaluation consisting of a student pre-briefing, in flight instruction based on student (real or simulated) needs and a post-flight critique TAPR. In flight instruction will include the areas listed in Table 5.1 under “INSTR”, but no other specific in flight events are required. If the former instructor requires initial instructor training/evaluation based on guidance in the training volume, or if the instructor requalification is concurrent with the aircraft requalification, comply with para 5.1.2.

5.1.3. **Emergency Procedures Evaluation (EPE).** Additional guidance: Use the Emergency Procedures criteria to evaluate Emergency Procedures Evaluations. The EPE satisfies the in-flight requirements for Area 4, Emergency Procedures, if no actual emergency procedure is experienced in flight.

5.2. Evaluation Requirements. Table 5.1 lists areas for flight attendant qualification, and instructor evaluations. An “R” indicates a requirement for that evaluation. An “X” in the notes column refers to a general note found in the specific grading criteria table.

Table 5.1. Flight Attendant Evaluation Requirements.

AREA/TITLE	NOTES	QUAL	INSTR
1. Personal/Professional Equipment		R	
2. Mission Planning		R	

3. Checklist Procedures		R	
4. Emergency Procedures (General)		R	
5. Emergency Procedures (Boldface) (Critical)			
6. Safety (Critical)		R	
7. Airmanship/Aircrew Discipline (Critical)		R	
8. Crew Coordination/CRM		R	
9. Preflight		R	
10. Loading Procedures		R	
11. Pre-Takeoff	X	R	
12. Airstairs		R	
13. Passenger Comfort		R	
14. Customs/Billing Procedures		R	
15. Systems Knowledge/Operation		R	
16. Air Refueling		R	
17. Descent/Before Landing		R	
18. After Landing		R	
19. Postflight/Debrief		R	
20. Communications, Logs, and Reports		R	
21. Instructional Ability			R
22. Briefings/Critique			R
23. Demonstration and Performance			R

5.3. Grading Criteria:

5.3.1. For the following general areas, see [chapter 1](#) for grading criteria:

5.3.1.1. Qualification:

5.3.1.1.1. Personal/Professional Equipment.

5.3.1.1.2. Mission Planning.

5.3.1.1.3. Checklist Procedures.

5.3.1.1.4. Emergency Procedures. (General)

5.3.1.1.5. Safety. (Critical)

5.3.1.1.6. Airmanship/Aircrew Discipline. (Critical)

5.3.1.1.7. Crew Coordination/CRM.

5.3.1.1.8. Post-flight/Debrief.

5.3.1.1.9. Operational Execution.

5.3.1.1.10. Communications, Logs and Reports.

5.3.1.2. Instructor:

5.3.1.2.1. Instructional Ability.

5.3.1.2.2. Briefings/Critique.

5.3.1.2.3. Demonstration and Performance.

5.3.2. Flight Steward Specific Grading Criteria:

5.3.2.1. AREA 9 – PREFLIGHT:

5.3.2.1.1. **Q.** Thoroughly accomplished all preflight interior inspection and equipment check procedures as prescribed in applicable directives and checklists. Thoroughly accomplished all prior to passenger loading procedures as prescribed in applicable directives and checklists. Checked AFTO Form 781 and determined FA equipment status. Demonstrated a thorough knowledge of amplified procedures. No deviations/omissions noted.

5.3.2.1.2. **Q-.** Same as above except for minor deviations/omissions and/or incomplete knowledge of amplified procedures, but did not delay aircraft or compromise safety.

5.3.2.1.3. **U.** Major deviations/omissions. Did not demonstrate adequate knowledge of amplified procedures. Did not accomplish required items in a timely manner.

5.3.2.2. AREA 10 – LOADING PROCEDURES:

5.3.2.2.1. **Q.** Demonstrated satisfactory knowledge of passenger seating, baggage handling, and baggage/equipment securing. Demonstrated awareness of safety procedures while loading and seating passengers and hand-carried baggage. Satisfactory knowledge of correct procedures and/or use of passenger manifests for identification of passengers and anti-hijacking procedures as specified in applicable regulations (all documentation checked, updated, completed, and signed, as required).

5.3.2.2.2. **Q-.** Minor errors/omissions in the above which did not detract from satisfactory mission accomplishment, safety or result in undue passenger inconveniences.

5.3.2.2.3. **U.** Major errors/omissions or inadequate knowledge that detracted from satisfactory mission accomplishment or compromised safety.

5.3.2.3. AREA 11 – PRE-TAKEOFF:

5.3.2.3.1. **Q.** Accomplished after loading and before taxi/takeoff procedures as prescribed in applicable directives and checklists. Ensured passenger compliance with after loading/before taxi/takeoff requirements. Ensured cabin/galley secured. Ensured Aircraft Commander received corrected crew/passenger manifests. Required briefings organized and presented effectively in a logical sequence. Covered all pertinent items in accordance with local directives/applicable regulations. Effective use of briefing aids.

5.3.2.3.2. **Q- .** Same as Q except for minor deviations/omissions that did not cause undue delay of flight or jeopardize safety. Briefing lacked continuity or contained unnecessary repetition. Some difficulty communicating thoughts clearly. Did not make effective use of briefing aids. Elaborated on non-essential items that did not affect safe/effective mission accomplishment.

5.3.2.3.3. **U.** Major deviations/omissions from established procedures or jeopardized personnel and/or aircraft safety. Failed to ensure passenger compliance with after loading/before taxi/takeoff requirements. Failed to ensure cabin/galley was secured. Failed to ensure aircraft commander received corrected crew/passenger manifests. Failed to brief essential items. Failed to use briefing aids. Demonstrated lack of knowledge of subject. Briefing was poorly organized and not presented in logical sequence resulting in confusion. Presented erroneous information which could affect safe/effective mission accomplishment. **NOTE:** A complete passenger briefing and explanation of all emergency equipment to include oxygen equipment and emergency egress slides will be accomplished for all evaluations except no-notice.

5.3.2.4. AREA 12 – AIRSTAIRS:

5.3.2.4.1. **Q.** Accomplished procedures/operation as prescribed in flight manual/applicable directives. Demonstrated a thorough knowledge of procedures.

5.3.2.4.2. **Q-.** Same as above, however not fully knowledgeable of procedures. Hesitant to perform required operations.

5.3.2.4.3. **U.** Deviations/omission from established procedures which jeopardized personnel or damaged aircraft equipment.

5.3.2.5. AREA 13 – PASSENGER COMFORT:

5.3.2.5.1. **Q.** Demonstrated satisfactory knowledge of the proper care and use of food service equipment. Safety considerations and sanitation were observed through all phases of food preparation, service, and clean up. General passenger service was efficient, professional and added to passenger comfort. Accomplished all cruise checklist items (as necessary). All phases of passenger handling carried out in accordance with mission requirements.

5.3.2.5.2. **Q-.** Same as above except for minor errors/omissions which did not detract from mission effectiveness or success.

5.3.2.5.3. **U.** Major errors/omissions, which detracted from passenger comfort and mission effectiveness or compromised safety.

5.3.2.6. AREA 14 – CUSTOMS/BILLING PROCEDURES (if applicable):

5.3.2.6.1. **Q.** Customs was handled satisfactorily and did not cause any undue inconveniences to passengers or flight. Billing requirements were handled efficiently and conveniently for passengers and did not interfere with other crew duties. Displayed satisfactory knowledge of proper way to complete **CF7507**, *General Declaration (Inbound/Outbound)*, *CF6059B Customs Declaration*, and any forms by host nation. Complied with local directives/instructions.

5.3.2.6.2. **Q-.** Same as above except for minor errors/omissions that did not detract from mission effectiveness.

5.3.2.6.3. **U.** Major errors/omissions that detracted from mission effectiveness or success. Did not follow prescribed directives/regulations.

5.3.2.7. AREA 15 – SYSTEMS KNOWLEDGE/OPERATION:

5.3.2.7.1. **Q.** Satisfactory knowledge of procedures and limitations of portable oxygen bottles and masks. Satisfactory knowledge of procedures and limitations of water and

electrical systems. Satisfactory knowledge of location and use of passenger oxygen system and kits (if applicable).

5.3.2.7.2. **Q-.** Same as above except for minor errors/omissions or incomplete knowledge. Did not compromise safety.

5.3.2.7.3. **U.** Major errors/omissions or inadequate knowledge or compromised safety.

5.3.2.8. AREA 16 – AIR REFUELING:

5.3.2.8.1. **Q.** Accomplished all checklist items and procedures as prescribed in applicable directives/flight manuals. Insured passengers complied with seat belt signs. Checked NCA compartment and Forward Lower Lobe for fuel fumes/leakage.

5.3.2.8.2. **Q-.** Same as Q except for minor errors/omission that did not compromise safety.

5.3.2.8.3. **U.** Major errors/omissions that compromised safety. Did not follow established procedures. Failed to ensure passengers complied with seat belt signs and/or make required checks for fuel fumes/leakage.

5.3.2.9. AREA 17 – DESCENT/BEFORE LANDING:

5.3.2.9.1. **Q.** Accomplished all checklist items and procedures as prescribed in applicable directives/regulations as required for mission accomplishment. Ensured passenger compliance with descent/landing requirements and ensured cabin/galley securing.

5.3.2.9.2. **Q-.** Same as above except for minor errors/omissions that did not compromise safety.

5.3.2.9.3. **U.** Major errors/omissions that compromised safety. Did not follow established procedures.

5.3.2.10. AREA 18 – AFTER LANDING:

5.3.2.10.1. **Q.** Accomplished after landing/engine shutdown and post-mission procedures as prescribed in applicable directives and checklists. Supervised the off-loading of passengers and baggage according to mission requirements. Completed all forms as directed by the Aircraft Commander.

5.3.2.10.2. **Q-.** Same as above except for minor errors/omissions that did not detract from mission effectiveness or compromise safety.

5.3.2.10.3. **U.** Major errors/omissions that caused undue delay/confusion in passenger off-loading, detracted from mission effectiveness or compromised safety.

Chapter 6

COMMUNICATION CONTROL OFFICER (CCO)/AIRBORNE COMMUNICATION SPECIALISTS (ACS) /SUPER HIGH FREQUENCY (SHF) EVALUATIONS

6.1. Instructions. The grading criteria applicable to evaluations for Communication Control Officers, Airborne Communication System Operators/Maintainers and Super High Frequency Operators/Maintainers are established by experience, policies and procedures set forth in flight manuals and other directives. SEFEs must realize that grading criteria contained herein cannot cover every situation. Flight evaluations should be scheduled on one sortie as a composite evaluation covering all applicable systems. CCO/ACS/ SHF evaluations may be given on the primary alert aircraft with written approval from the SQ/CC. Written parameters must be tempered with mission objectives and, more importantly, mission/task accomplishment in the determination of overall aircrew performance.

6.1.1. Qualification Evaluations:

6.1.1.1. **Ground Requisites.** Qualification Examination (open book), Emergency Procedures Examination (closed book), and Emergency Procedures Evaluation (EPE).

6.1.1.2. **Flight Phase.** All areas required in Table 6.1 under “QUAL” will be evaluated.

6.1.2. Instructor Evaluations:

6.1.2.1. **Instructor Evaluations.** The SEFE may, during any phase of the evaluation, require the instructor examinee to demonstrate and/or present verbal explanations to the SEFE on emergency procedures/equipment, aircraft systems (location, configuration, operation, procedures, and techniques), mission knowledge or any other operating procedures and techniques. Demonstrations will be pre-briefed to the examinee and will be accomplished at an appropriate time so as not to interfere with the examinee's crew duties and pacing. Instructors on recurring evaluations should instruct based on the needs of the student (actual or simulated). All areas required in Table 6.1 under “INSTR” will be evaluated. Initial instructor checks may be accomplished in-flight or on the ground/alert.

6.1.2.2. **Instructor Requalification Evaluations.** Former instructors who have regained currency and qualification in the aircraft, and who meet training volume criteria to re-qualify as instructors will receive an instructor flight or ground evaluation consisting of a student pre-briefing, instruction based on student (real or simulated) needs and a post-flight critique TAPR. Instruction will include the areas listed in Table 6.1, under “INSTR,” but no other specific events are required. If the former instructor requires initial instructor training/evaluation based on guidance in the training volume or if the instructor requalification is concurrent with the aircraft requalification, comply with para **6.1.2.**

6.1.3. **Emergency Procedures Evaluation (EPE).** Additional guidance: ACS crewmembers may cover troubleshooting and repair. Use the Emergency Procedures criteria to evaluate Emergency Procedures Evaluations. The EPE satisfies the in-flight requirements for Area 4, Emergency Procedures, if no actual emergency procedure is experienced in flight.

6.2. Evaluation Requirements: Table 6.1 lists the areas for CCO/ACS/SHF qualification, and instructor evaluations. An “R” indicates a requirement for that evaluation.

Table 6.1. CCO/ACS/SHF Evaluation Requirements.

AREA/TITLE	NOTE	QUAL	INSTR
1. Personal/Professional Equipment	X	R	
2. Mission Planning		R	
3. Checklist Procedures		R	
4. Emergency Procedures (General)		R	
5. Emergency Procedures (Boldface) (Critical)			
6. Safety (Critical)		R	
7. Airmanship/Aircrew Discipline (Critical)		R	
8. Crew Coordination/CRM		R	
9. Equipment/Systems Knowledge/Operation		R	
10. Communications Security (Critical)		R	
11. Publication Knowledge/Use	X	R	
12. Maintenance and Troubleshooting	X	R	
13. EAM Procedures (Critical)	X	R	
14. Malfunction Analysis	X	R	
15. Post-flight/Debrief		R	
16. Operational Execution		R	
17. Communications, Logs and Reports		R	
18. Instructional Ability			R
19. Briefings/Critique			R
20. Demonstration and Performance			R

6.3. Grading Criteria:

6.3.1. For the following general areas, see [chapter 1](#) for grading criteria:

6.3.1.1. Qualification:

6.3.1.1.1. Personal/Professional Equipment.

6.3.1.1.2. Mission Planning.

6.3.1.1.3. Checklist Procedures.

6.3.1.1.4. Emergency Procedures. (General)

6.3.1.1.5. Safety. (Critical)

6.3.1.1.6. Airmanship/Aircrew Discipline. (Critical)

6.3.1.1.7. Crew Coordination/CRM.

6.3.1.1.8. Post-flight/Debrief.

6.3.1.1.9. Operational Execution.

6.3.1.1.10. Communications, Logs, and Report.

6.3.1.2. Instructor:

6.3.1.2.1. Instructional Ability.

6.3.1.2.2. Briefings/Critique.

6.3.1.2.3. Demonstration and Performance.

6.3.2. CCO/ACS/SHF-Specific Grading Criteria:

6.3.2.1. AREA 9 – EQUIPMENT/SYSTEMS KNOWLEDGE/OPERATIONS:

6.3.2.1.1. **Q.** Demonstrated satisfactory knowledge of communication components, functions, and limitations; demonstrated proper management and operation of communication systems; adequately determined status of all related systems.

6.3.2.1.2. **Q-.** Demonstrated incomplete knowledge of communications components, functions and limitations. Performed minor deviations in management or operation of communications systems. Adequately determined status of related systems.

6.3.2.1.3. **U.** Demonstrated unsatisfactory knowledge of aircraft systems and related communications systems, equipment limitations, and functions. Demonstrated inadequate knowledge of procedures for applicable related systems.

6.3.2.2. AREA 10 – COMMUNICATIONS SECURITY (CRITICAL):

6.3.2.2.1. **Q.** Demonstrated thorough knowledge of communications security requirements and procedures as outlined in applicable directives. Demonstrated responsible handling of classified information and/or equipment.

6.3.2.2.2. **U.** Demonstrated unsatisfactory knowledge of communications security requirements and procedures as outlined in applicable directives. Demonstrated improper handling of classified information and/or equipment.

6.3.2.3. AREA 11 – PUBLICATIONS KNOWLEDGE/USE:

6.3.2.3.1. **Q.** Demonstrated efficient use of applicable publication diagrams in determining system operation or troubleshooting without significant confusion or delays.

6.3.2.3.2. **Q-.** Demonstrated use of applicable publications, showed limited understanding of the use of diagrams in determining system operation or troubleshooting which did not affect mission or troubleshooting effectiveness.

6.3.2.3.3. **U.** Failed to demonstrate an ability to use applicable publications for determining system operation or troubleshooting which affected mission or troubleshooting effectiveness.

6.3.2.4. AREA 12 – MAINTENANCE AND TROUBLESHOOTING:

6.3.2.4.1. **Q.** Performed proper maintenance practices using test and maintenance equipment with minor omissions and deviations not affecting malfunction analysis. Properly attempted to optimize mission equipment effectiveness.

6.3.2.4.2. **Q-.** Performed proper maintenance practices utilizing test and maintenance equipment with minor omissions and deviations not adversely affecting malfunction analysis.

Attempted to optimize mission equipment effectiveness with some errors which did not affect mission success.

6.3.2.4.3. **U.** Performed improper maintenance practices utilizing test and maintenance equipment which adversely affected mission success.

6.3.2.5. AREA 13 – EMERGENCY ACTION MESSAGE (EAM) PROCEDURES (CRITICAL):

6.3.2.5.1. **Q.** Demonstrated ability to properly configure/operate system for receipt and transmission of messages in accordance with applicable directives. Applied appropriate alternate operating procedure when applicable. EAM Dissemination procedures applied as required by governing directives.

6.3.2.5.2. **U.** Failed to properly configure/operate systems. Made major discrepancies or incorrect operations which caused significant delay in receipt or transmission of messages. Demonstrated inadequate knowledge of procedures for applicable related systems. Unacceptable EAM Dissemination procedures as required by governing directives.

6.3.2.6. AREA 14 – MALFUNCTION ANALYSIS:

6.3.2.6.1. **Q.** Performed proper maintenance practices using test and maintenance equipment with minor omissions and deviations not affecting malfunction analysis. Properly attempted to optimize mission equipment effectiveness.

6.3.2.6.2. **Q-.** Performed proper maintenance practices using test and maintenance equipment with minor omissions and deviations not adversely affecting malfunction analysis. Attempted to optimize mission equipment effectiveness with some errors, which did not affect mission success.

6.3.2.6.3. **U.** Performed improper maintenance practices using test and maintenance equipment, which adversely affected malfunction analysis. Either did not attempt or improperly attempted to optimize mission equipment effectiveness, which adversely affected mission success.

6.4. Adopted Forms. All forms identified/used in this publication are adopted and are available on the e-pubs website. Forms used are the: AF Form 8, *Certificate of Aircrew Qualification*; AF Form 942, *Record of Evaluation*; AF Form 847, *Recommendation for Change of Publication*; AFTO Form 781, *Aerospace Vehicle Flight Report and Maintenance Document*; CF 7507, *General Declaration (Inbound/Outbound)*; CF 6059B *Customs Declaration*.

6.5. Prescribed Forms. This publication does not use any prescribed forms.

DANIEL J. DARNELL, Lt Gen, USAF
DCS, Operations, Plans and Requirements

ATTACHMENT 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 11-2E-4 V1, *E-4 Aircrew Training*, 18 Aug 05
AFI 11-2E-4 V3, *E-4 Aircrew Procedures*, 5 Mar 98
AFI 11-215, *Flight Manuals Program*, 22 Dec 08
AFI 11-290, *Cockpit/Crew Resource Management Training Program*, 11 Apr 01
AFI 33-360V1, *Publications Management Program*, 18 May 06
AFI 11-401, *Aviation Management*, 7 Mar 07
AFI 11-202V2, *Aircrew Standardization/Evaluation Program*, 8 Dec 06
AFPD 11-2, *Aircraft Rules and Procedures*, 14 Jan 05
AFPD 11-4, *Aviation Service*, 1 Sep 04
ATP 56(B), *Air-to-Air Refueling*, 1 Dec 08

Abbreviations and Acronyms

ACC— Air Combat Command
ACS— Airborne Communication Specialists
AFI— Air Force Instruction
ARCT— Air Refueling Control Time
ATC— Air Traffic Control
AWACS— Airborne Warning and Control System
BTCE— Block Time Control Exercise
CAPs— Critical Action Procedures
CCO— Communication Control Officer
CRM— Cockpit/Crew Resource Management
DH— Decision Height
DR— Dead Reckoning
EAM— Emergency Action Message
EPE— Emergency Procedures Evaluation
ETA— Estimated Time of Arrival
FCIF— Flight Crew Information File
FEF— Flight Evaluation Folder
FLIP— Flight Information Publication

FMS— Flight Management System
HQ— Headquarters
IAW— In Accordance With
IFF— Identification, Friend or Foe
ILS— Instrument Landing System
INS— Inertial Navigation System
INSTM— Instrument
INSTR— Instructor
IRC— Instrument Refresher Course
LPVR— Low Pass Visual Rendezvous
MAJCOM— Major Command
MAP— Missed Approach Point
MPP— Most Probable Position
NAF— Numbered Air Force
NM— Nautical Mile
OG/CC— Operations Group Commander
OGV— Operations Group Standardization/Evaluation
PAR— Precision Approach Radar
PEX— Patriot Excalibur
Q— Qualified
QUAL— Qualification
RM— Radio Maintenance
RVIP— Rendezvous Initial Point
SE— Systems Engineer
SEFE— Standardization/Evaluation Flight Examiner
SHF— Super High Frequency
SIF— Selective Identification Feature
SQ/CC— Squadron Commander
TAPR— Training Accomplishment Progress Report
T/O— Take off
TOLD— Take Off and Landing Data
U— Unqualified
VFR— Visual Flight Rules

Terms

Airmanship—An aircrew member's continuous perception of self and aircraft in relation to the dynamic environment of flight and mission, and the ability to forecast, then execute, tasks based upon that perception.

Deviation—Performing an action not in sequence with current procedures, directives, or regulations. Performing action(s) out of sequence due to unusual or extenuating circumstances is not considered a deviation. In some cases, momentary deviations may be acceptable; however, cumulative deviations will be considered in determining the overall qualification level.

Error—Departure from standard procedure. Performing incorrect actions or recording inaccurate information.

Flight Examiner/Evaluator—A crewmember designated to administer evaluations.

Instructor—Crewmember trained, qualified, and certified by the SQ/CC as an instructor to perform both ground and flight training.

Instructor supervision—A qualified like instructor in the same AFSC supervising a maneuver or training event. For critical phases of flight, the instructor pilot must occupy one of the seats with immediate access to the controls.

Major—Detracted from task accomplishment, adversely affected use of equipment, or violated safety.

Minor—Did not detract from task accomplishment, adversely affect use of equipment, or violate safety.

Omission—To leave out a required action or annotation.

Supervised training status—Crewmember will fly under instructor supervision as designated by the SQ/CC or evaluator.

Training Devices—All trainers, computer assisted instruction, sound-on-slide programs, videos and mockups designed to prepare students for flight training or augment prescribed continuation training.